

Detail of Valve Gear from Fig. 1



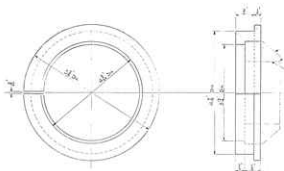
Detail of Valve Gear from Fig. 2

Steam-Water Engine for Main Line Locomotives, with Water-Pump Section Attached

Note - The figures to be polished, the
other portion of Plate to be painted black.



Tenders to be numbered
192 to 213 inclusive
for Contract CME 1970



THIS DRAWING WAS PREPARED BY
 ENGINEER AND SUPERVISOR - RUST
 BASED ON SURVIVAL REPORT.

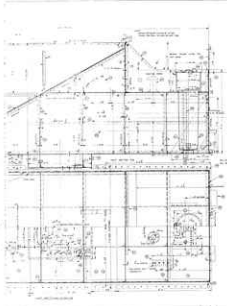
RELATES THIS WORK ON CASE 27-1-10
 AND 27-1-102

DETAILS - SEE DRAWING

SEE DRAWING FOR DIMENSIONS

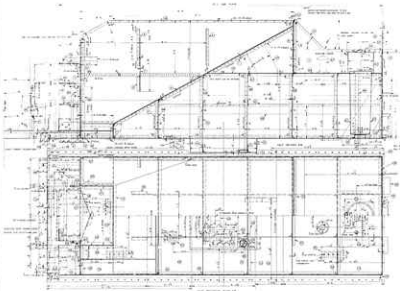
FRESHING 1/8" OR MACHINING END-METALLIC PARTS FOR SURVIVAL OF CASE T-10, 102, 103			
DATE	<i>JJA</i>	BY	S. A. R.
REV. 1/10		BY	10/10/50
DES. 1/10		BY	1-LT-375
CHK	<i>[Signature]</i>	BY	ARCHIVES

REV.	DATE	DESCRIPTION	BY



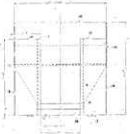
This drawing shows the floor plan of the building
 and the location of the various rooms and
 the staircase. The drawing is a detailed
 architectural plan showing the layout of the
 building and the location of the various rooms
 and the staircase.

Room No.	Room Name	Area (sq. ft.)	Remarks
1	Living Room	1200	
2	Dining Room	800	
3	Kitchen	400	
4	Bed Room	1000	
5	Bath	200	
6	Staircase	100	
7	Corridor	100	
8	Entrance	100	
9	Storage	100	
10	Office	300	



1. CONCRETE
 2. BRICK
 3. PLASTER
 4. INSULATION
 5. ROOFING
 6. FLOORING
 7. PAINTING
 8. ELECTRICAL
 9. MECHANICAL
 10. FINISHING

NO.	DESCRIPTION	QUANTITY	UNIT	PRICE	TOTAL
1	CONCRETE	100	CY	10.00	1000.00
2	BRICK	1000	SQ YD	1.00	1000.00
3	PLASTER	100	SQ YD	1.00	100.00
4	INSULATION	100	SQ YD	1.00	100.00
5	ROOFING	100	SQ YD	1.00	100.00
6	FLOORING	100	SQ YD	1.00	100.00
7	PAINTING	100	SQ YD	1.00	100.00
8	ELECTRICAL	100	SQ YD	1.00	100.00
9	MECHANICAL	100	SQ YD	1.00	100.00
10	FINISHING	100	SQ YD	1.00	100.00
TOTAL					3500.00



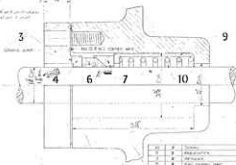
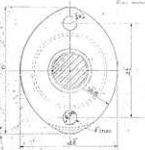
1/4" = 1'-0"
 1/8" = 1'-0"
 1/16" = 1'-0"



Scale
1:100



Dimensional drawing of valve stem
See notes on page 1 and 2



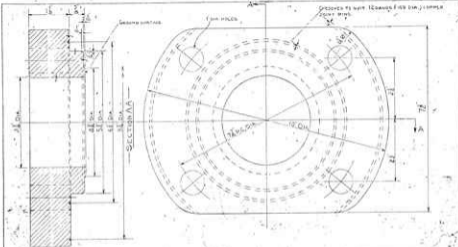
Notes from O.P.M.P.T.S. Form No. 142 to 142B

No.	Part	Quantity	Material
1	Seal	1	316
2	Washer	1	316
3	Washer	1	316
4	Valve Stem Nut	1	316
5	Valve Stem	1	316
6	Seal	1	316
7	Washer	1	316
8	Washer	1	316
9	Valve Stem	1	316
10	Valve Stem Nut	1	316

BRG METALLIC VALVE STEM DRAWING

Date: _____
 Part No: _____
 Scale: _____
 S.A.P.
 BRG
 27 - L - 103

Part No.	Part Name	Quantity	Material
1	Seal	1	316
2	Washer	1	316
3	Washer	1	316
4	Valve Stem Nut	1	316
5	Valve Stem	1	316
6	Seal	1	316
7	Washer	1	316
8	Washer	1	316
9	Valve Stem	1	316
10	Valve Stem Nut	1	316



TYPE			
MATERIAL			See Note 104
FINISH	See Note 104		
GLAND	FOR KING METALLIC PISTON ROD PICKERS.		
SCALE	1/2" = 1"		
DATE	10/10/44		
BY			
CHECKED			
		CD. S. A. R.	27-L-104
		W. J. L. L. L. L. L.	
		REV.	

NO.	DATE	DESCRIPTION

ALL DIMENSIONS UNLESS
 ALL DIMENSIONS TO UNLESS A
 TOLERANCE IS - ± .005"
 MADE -
 FINISH -

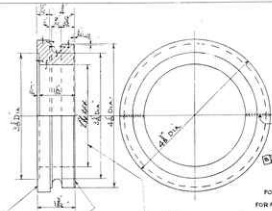


PLATE TO BE MADE IN HALVES

JOINT TO BE STEAM TIGHT.

NOTE

1. SPLIT SLIDING PLATE TO BE BORED TO PISTON ROD DIA. $2\frac{1}{8}$ " & CONSIDERED WHEN A $\frac{1}{16}$ " IS EXCESSIVE PACKING REPLACEMENT, NORMAL DIA. OF PISTON ROD = $2\frac{1}{8}$ "

Handwritten note: BORE

FOR ARRST. SEE DRG# 27-L-101

FOR ARRST. - N^o CLASS SEE DRG# 27-L-155

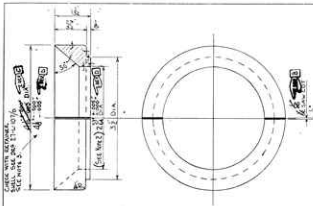
Handwritten note: BORE $2\frac{1}{8}$ " ± .005" DIA (SEE NOTE 1)

N ^o	4	-	-	-	-
T ^o UR	4	"	"	"	"
T ^o UR	4	HALVES	CAST IRON	M.I.I	
INC. DATE		N/ENG.		MATERIAL	
SPLIT SLIDING PLATE FOR KING METALLIC PISTON ROD PACKING.					
SCALE	Full Size	J.C.D.	S.A.R.		
D ^o Y	9/24	J.P.M.	ISLINGTON		
C ^o		C.M.E.	27-L-105		
			2/23/48		

5	50-6-50	BORE ALT ^y FROM $2\frac{1}{8}$ " TO $2\frac{1}{8}$ " ± .005" NOTE ADDED.	RE.
A	20-7-42	CONFORMALITY SLTS - N ^o CLASS (2-6 CAUSE) ADDED.	187
REV ⁿ	DATE	DESCRIPTION	

DATE

WHEN ORDERING SPECIFY ALL DIMENSIONS TO HAVE A TOLERANCE OF $\pm .005$ " UNLESS OTHERWISE SPECIFIED



NOTE

- 1 HALVES TO BE SWAGED TOGETHER PRIOR TO FINISHING ALL OVER.
- 2 RETAINER TO BE BORED TO PISTON ROD DIA. & GRINDING WHEN DIA IS EXCEEDED AT FINISHING REPLACEMENT. MINIMUM DIA. OF PISTON ROD = 2.8"
- 3 RETAINER DIM 27-L-106 1/2 TO HAVE .005" TO .010" CLEARANCE WHEN MOUNTED IN RETAINER DIM 27-L-107 1/2

FOR ASSEMBLY SEE DRW NO 27-L-101

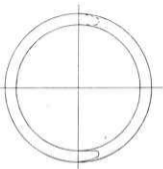
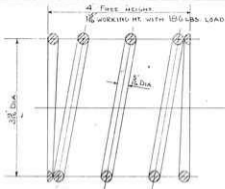
FOR ASSEMBLY - N° CLASS - SEE DIM 27-L-105

N°	4		
TASUB	4		
T SUB	4	HALVES	CAST IRON M.12
END CLASS	DATE	N° END	MATERIAL

RETAINER FOR KING METALLIC PISTON ROD PACKING.

D	5-8-20	DEPTH OF GROOVE INCREASED & TOLERANCE ADDED 2.0 DIA.	27
C	5-12-49	TOLERANCE ADDED TO 4.5" DIA	CHE SEALER SEE
B	6-12-48	DEPTH OF GROOVE INCREASED FROM 1/8" TO 3/16" 2.3, 1855	PCS
A	10-1-41	COMMONWEALTH BLY N° CLASS - (3-6 GAUGE) ADDED.	187
REV#	DATE	DESCRIPTION	

SCALE	FULL SIZE		J.C.D. S.A.R. 1211 ISLINGTON CMEE 27-L-106 12/14/49
DRW	J.C.M.		
CHKD	J.P.		



SPRING TO HAVE 2 1/2 WORKING COILS

FOR ABBOT SEE DRW NO 27-L-101

FOR ABBOT - N^o CLASS - SEE DRW NO 27-L-105

NO	2		
T _{SUP}	2		
T _{TOP}	2		
ENG CLASS	DATE	N ^o ENG	MATERIAL
SPRING FOR KING METALLIC PISTON ROD PACKING			
SCALE	Full Size	J.C.D.	S.A.R.
DRW	J.C.M.	K.F.H.	ISLINGTON
CHKD	J.S.	CME	27-L-109
		20-FA	

A	30-1-48	COMMONWEALTH REYS N ^o CLASS (3'-6" GAUGE) ADDED	287
REV	DATE	DESCRIPTION	



CLASS	DIAM A	FOR LEADING INCH DIA
F and F ₁ SW	10 $\frac{1}{8}$	27 - L - 181
FA	11 $\frac{1}{8}$	27 - L - 183
GA	11 $\frac{1}{8}$	27 - L - 182
NA	10 $\frac{1}{8}$	27 - L - 185
RA	11 $\frac{1}{8}$	27 - L - 180
SM AND SW	1 - 24	27 - L - 182
T ₂₀ - T ₂₅	1 - 24	27 - L - 182
S ₂₀ - T ₂₅	1 - 24	27 - L - 182
620	11 $\frac{1}{8}$	27 - L - 181
400	11 $\frac{1}{8}$	27 - L - 177



RENEWED TRACING, LINE IV⁸

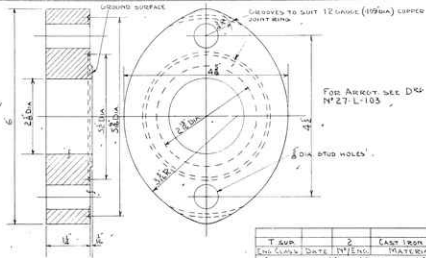
REV ¹	DATE	DESCRIPTION	INITIALS
K	12-1-34	400 CT ADDED	A.F.L-2628
J	10-8-35	$\frac{1}{8}$ " GAP ADDED AT ONE END (END END ONLY)	G.S. 2822
H	11-1-37	AMM ¹ REV ¹ END, REV ¹ SPRINGS ADDED	G.S. 658
G	10-1-40	END REV ¹ REV ¹ (1'-6") ADDED	F.S.W
F	7-1-43	END REV ¹ RA AND GA CLASS (1'-8 1/2") ADDED	F.S.W
E	7-1-43	END CLASS ADDED	
D	2-2-38	TAP MANDREL END ¹ ADDED	A.R.
C	11-1-37	END CLASS AND REV ¹ END ¹ DIA REV ¹ 27-1-183, 182, 184 REV ¹ ADDED	F.S.W
B	7-1-38	END CLASS RA ADDED	
A	24-3-35	END REV ¹ 620-622 ADDED	

REV ¹	DATE	DESCRIPTION	INITIALS	MATERIAL
3		SPRINGS A = 1-24	2	STEEL
2		" " A = 11 $\frac{1}{8}$	2	" " " " " "
1		SPRINGS A = 10 $\frac{1}{8}$	2	STEEL

GARTER SPRING

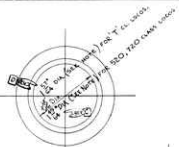
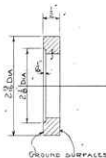
FOR RING METALLIC PISTON ROD JACKING

SCALE	GO.	S.A.R.
FULL SIZE	1-7-45	ISLINGTON
DRN J.C.M.	C.M.E.	27-L-110
CC	1-7-45	ASBURNHAMPTON



T. SUP.		2	CAST IRON M. II
ENG. CLASS.	DATE	N°/ENG.	MATERIAL
GLAND FOR KING METALLIC VALVE STEM PACKING			
SCALE	<i>Handwritten initials</i>	<i>Handwritten initials</i>	S.A.R.
FULL SIZE			ISLINGTON
DESIGNED BY	<i>Handwritten initials</i>	C.M.E.	27-L-III
CHECKED BY			

REV.	DATE	DESCRIPTION



NOTE!

Check Bore to valve spindle dia + $\frac{1}{16}$ " CONDENSEN WHEN $\frac{1}{16}$ " IS EXCEEDED AT PACKING REPLACEMENT, NOM. DIA. OF VALVE SPINDLE + $1\frac{1}{8}$ " FOR 520, 720 CLASS LEADS. + $1\frac{1}{4}$ " FOR 'T' CLASS LEADS.

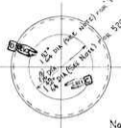
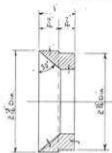
FOR ARROW SEE D^{NO} N^O 27-L-103 FOR T
 D^{NO} N^O 27-L-144 - 720CL & 520CL

520	7-4-43	2		
720		2		
T SUP		2	CAST IRON M. 12	

ENG. CLASS. DATE N^O/ENG. MATERIAL
SLIDING PLATE FOR KING METALLIC VALVE STEM PACKING.

D	12-8-56	VALVE SPINDLE	23
C	7-7-50	CONTACT FROM 1/16" TO 1/8". NOTE ADDED.	TC M.
B	7-4-43	520 CLASS ADDED	
A	7-1-38	720 CLASS ADDED	
REV.	DATE	DESCRIPTION	

SCALE	FULL SIZE	C.D.	S.A.R.
D ^{NO}	C.M.	27-L-12	12
C ^{NO}		7-4-43	



NOTE:

BORE TO VALVE SPINDLE DIA. $\pm \frac{1}{64}$ & CONFORM WHEN $\frac{1}{64}$ IS EXCEEDED AT PACKING REPLACEMENT. NOM. DIA. OF VALVE SPINDLE
 = $1 \frac{1}{8}$ " FOR 520, 720 CLASS LOCKS.
 = $1 \frac{1}{4}$ " FOR 'T' CLASS LOCKS.

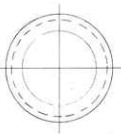
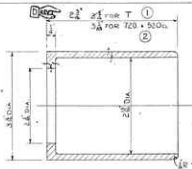
FOR APPROX. SEE DRW. NO. 27-L-103 FOR 'T'
 DRW. NO. 27-L-144 - 720CL x 520CL

520	74-43	2	-	-	-
720		2	-	-	-
T SUP.		2	CAST IRON DT2		
ENL. CLASS	DATE	BY/ENG.	MATERIAL		

RETAINER FOR KING METALLIC VALVE STEM PACKING.

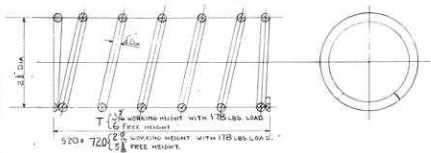
D	2-8-56	BORE DIA. OF RETAINER FOR CLASS 'T' LOCKS ALT FROM $1 \frac{1}{8}$ " TO $1 \frac{1}{4}$ "	JCM
C	7-7-50	BORE ALT. FROM $1 \frac{1}{8}$ " TO $1 \frac{1}{4}$ " NOTE ADDED	P.S.
B	7-4-43	520 CLASS ADDED	JCM
A	13-1-38	720 CLASS ADDED	JCM
REV.	DATE	DESCRIPTION	

SCALE	FULL SIZE	W. H. H.	F.C.D.	S.A.R.
DRW. NO.	27-L-113	JCM	CME	27-L-113
CHKD.				



FOR ASSEMBLY SEE Dwg No 27-L-103 FOR T
 Dwg No 27-L-144 - 720CL & 500CL

2	500 CLASS FOR CLASS	2	CAST IRON M 12
1	PREVENTER FOR CAST	2	CAST IRON M 12
MARK	DESCRIPTION	QTY	REMARKS
PREVENTER FOR KING METALLIC VALVE STEM PACKING			
D	1-2-51	OVERALL LENGTH FOR HOLE CUT FROM 3" TO 2"	38
C	18-10-47	MARK NUMBERS ADDED. QUOTE SHEET NO 245.	448
B	7-4-43	500 CLASS ADDED	NR 40
A	15-1-38	720 CLASS ADDED	
REV'D	DATE	DESCRIPTION	
SCALE	FULL SIZE	<i>Handwritten initials</i>	G.D. S.A.R. ISLINGTON
Dwg No	27-L-144	<i>Handwritten initials</i>	CME 27-L-144
CHKD			27-L-144

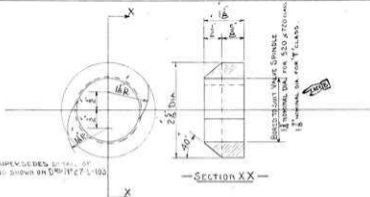


SPRING TO HAVE 5 WORKING COILS.

FOR AXEPT. SEE D^{NO} N²⁷-L-103 FOR T.
 D^{NO} N²⁷-L-144 - 720 & 520 CLASS

520	7-4-43	2	
720		2	
T. Gap		2	Engineering Spring Shop Spec. 10012435
ING. CLASS	DATE	N ^o /ENG.	MATERIAL
SPRING FOR KING-METALLIC VALVE STEM PACKING			
SCALE	FULL SIZE	PCD	S.A.R.
		NEW	ISLINGTON
D ^{NO} N ²⁷ -L-115		CME	27-L-115
		W. H. AB	

B	7-4-43	520 CLASS ADDED
A	1-1-38	720 CLASS ADDED
REV ^o	DATE	DESCRIPTION



THIS DRG SUPERSEDES DETAIL OF
PACKING RING SHOWN ON DRG NO 27-L-103

RING TO BE MACHINED ALL OVER

FOR ANNOT. SEE DRG NO 27-L-103 FOR T
" " " DRG NO 27-L-144 - 720 & 520 CLASS

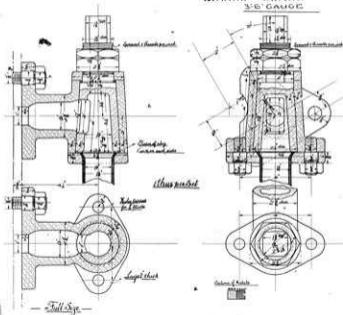
520	7-4-43	2	M 29
720		2	M 29
T		2	M 29
ENG. CLASS. DATE			IV/ENG. MATERIAL
PACKING RING FOR KING METALLIC VALVE SPINDLE PACKING			
SCALE	Full Size	C.D.	S.A.R.
		3.1.38	ISLINGTON
DRG	J.C.M.	C.M.E.	27-L-145
CHKD	J.C.	3.1.38	AB

B	2-8-34	REVISED DETAIL FOR 520 CLASS ALL FROM 1/4"	
A	7-4-43	520 CLASS ADDED	
REV	DATE	DESCRIPTION	INTS

SOUTH AUSTRALIAN RAILWAYS
ENGINE CLASS T
3'6" GAUGE

651A

20/10/1911

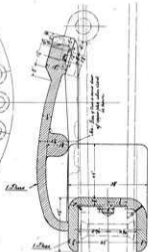
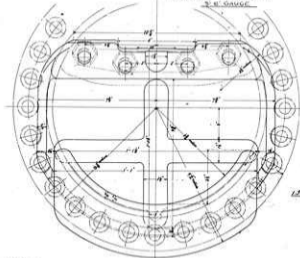


— Standard Block of fuel —
JAMES MARTIN & CO. LIMITED
PHOENIX FOUNDRY,
GAWLER, S. A.

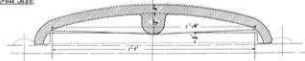
SOUTH AUSTRALIAN RAILWAYS
ENGINE CLASS T
3' 6" GAUGE

1004A

W. & A. GILCHRIST



Full Size



The Iron and Foundry Works

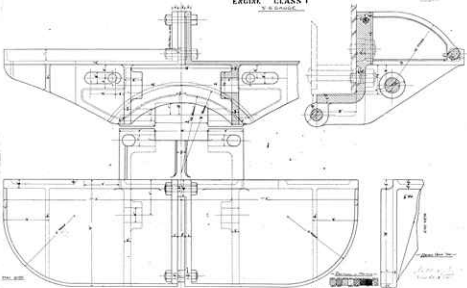
JAMES MARTIN & CO. LIMITED
ENGINEERS & FOUNDRY
GAWLER, S. A.



SOUTH AUSTRALIAN RAILWAYS
ENGINE CLASS T

T. B. GARDNER

1006
T. B. GARDNER



JAMES MARTIN & CO LIMITED
PROBABLE ENGINEER
LONDON, E. C.

Fig 1



3' x 3' x 3' part



1/2" x 1/2" x 1/2" part



3' x 3' x 3' part

259
33



1/2" x 1/2" x 1/2" part



1/2" x 1/2" x 1/2" part

Exercises for Exercise Class I

Scale 3" = 1 foot

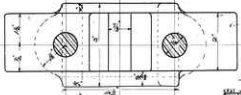
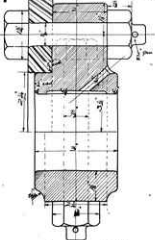
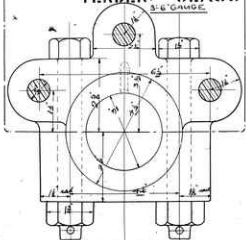
1. Draw a cylinder 3" high and 2" diameter.
2. Draw a cone 3" high and 2" diameter.
3. Draw a sphere 3" diameter.

SOUTH AUSTRALIAN RAILWAYS
TENDER CLASS T

2531A

W. 207/105.

3'6" GAUGE



*Engine 3'6 Gauge
Brake shaft hanger*

Half Section

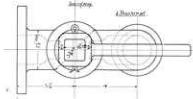
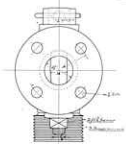
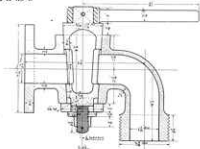
Sections of Metals
JAMES MARTIN & CO. LD.
PHOENIX FOUNDRY
CAWLER, S. A.



Full Size

2896A

DRAWING NUMBER



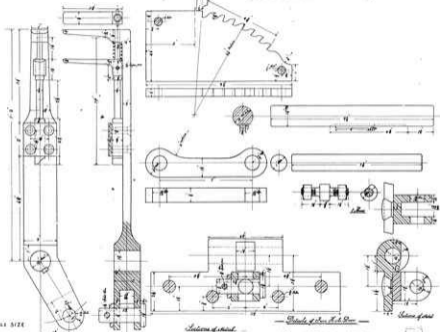
WATERCOCK
5-1-1-6 GAGES

JAMES HARTILL &
CO. LONDON
LONDON, U.K.

FULL SIZE

SOUTH AUSTRALIAN RAILWAYS
ENGINE CLASS T
3' 6" GAUGE.

3195
S.M. 1914



FULL SIZE

Section of axle

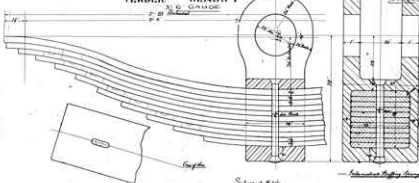

Section of axle with spring

Section of axle

JAMES MARTIN & CO LIMITED
 PROPERTZ BUILDING
 GAWLER, S. A.

SOUTH AUSTRALIAN RAILWAYS
TENDER CLASS T

3295A



Other views of bogie

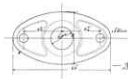
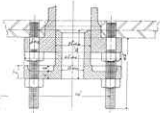
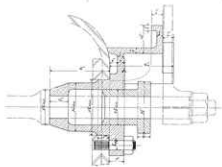
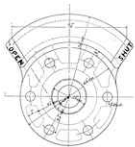
Section of bogie

Internal bogie drawing



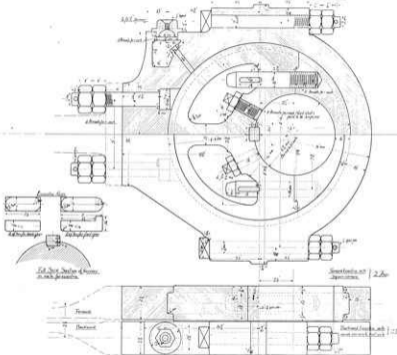
JAMES MARTIN & CO LIMITED
BRICKS FOUNDRY
GAWLER, S. A.

Full size



— *Reynolds & Reynolds Co.* —
— *Eng'rs & Mach'rs.* —
— *Chicago, Ill.* —
— *1877.* —

Ball & Co.
1877



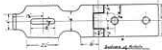
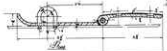
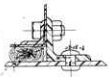
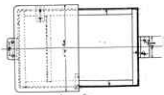
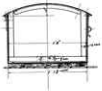
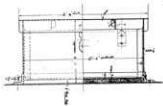
Final Size

App. Mfg. Co.

Sectional View of 2.5
Engr. Chas. V. 2-10-1930

SOUTH AUSTRALIAN RAILWAYS
 TENDER CLASS T
 3'6" GAUGE

4518
 V.M. Langford



Side Elev.

27

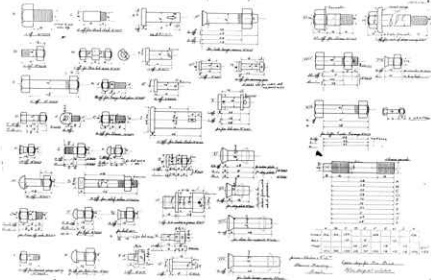
Tender and Bogie
 Express 3'6" Gauge

JAMES BAILEY & CO. LTD.
 ENGINEERS
 ADELAIDE, S. A.



Table des Matériaux pour les Tubes

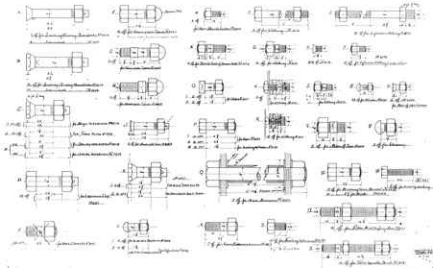
Page 10



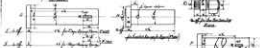
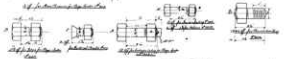
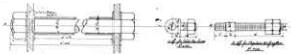
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Matériau	Diamètre	Épaisseur	Longueur	Poids	Matériau	Diamètre	Épaisseur	Longueur	Poids
Acier	100	10	1000	1570	Acier	150	15	1000	3534
Acier	200	20	1000	14137	Acier	250	25	1000	39270
Acier	300	30	1000	28263	Acier	350	35	1000	43985
Acier	400	40	1000	56526	Acier	450	45	1000	63900
Acier	500	50	1000	85289	Acier	550	55	1000	95400
Acier	600	60	1000	114052	Acier	650	65	1000	126450
Acier	700	70	1000	142815	Acier	750	75	1000	159450
Acier	800	80	1000	171578	Acier	850	85	1000	184500
Acier	900	90	1000	200341	Acier	950	95	1000	216450
Acier	1000	100	1000	229104	Acier	1050	105	1000	231450
Acier	1100	110	1000	257867	Acier	1150	115	1000	246450
Acier	1200	120	1000	286630	Acier	1250	125	1000	261450
Acier	1300	130	1000	315393	Acier	1350	135	1000	276450
Acier	1400	140	1000	344156	Acier	1450	145	1000	291450
Acier	1500	150	1000	372919	Acier	1550	155	1000	306450
Acier	1600	160	1000	401682	Acier	1650	165	1000	321450
Acier	1700	170	1000	430445	Acier	1750	175	1000	336450
Acier	1800	180	1000	459208	Acier	1850	185	1000	351450
Acier	1900	190	1000	487971	Acier	1950	195	1000	366450
Acier	2000	200	1000	516734	Acier	2050	205	1000	381450

Belts for the *Trigun*

English



20/11/19



Handwritten text at the bottom of the page, possibly a signature or a note.

— *Handbook of Engineering* —

Fig. 1000
1000



Fig. 1001 - *Shaft with collar and nut*



Fig. 1002 - *Shaft with collar and nut*



Fig. 1003 - *Shaft with collar and nut*



Fig. 1004 - *Shaft with collar and nut*



Fig. 1005 - *Shaft with collar and nut*



Fig. 1006 - *Shaft with collar and nut*



Fig. 1007 - *Shaft with collar and nut*



Fig. 1008 - *Shaft with collar and nut*



Fig. 1009 - *Shaft with collar and nut*



Fig. 1010 - *Shaft with collar and nut*



Fig. 1011 - *Shaft with collar and nut*



Fig. 1012 - *Shaft with collar and nut*



Fig. 1013 - *Shaft with collar and nut*



Fig. 1014 - *Shaft with collar and nut*



Fig. 1015 - *Shaft with collar and nut*



Fig. 1016 - *Shaft with collar and nut*



Fig. 1017 - *Shaft with collar and nut*

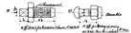


Fig. 1018 - *Shaft with collar and nut*



Fig. 1019 - *Shaft with collar and nut*



Fig. 1020 - *Shaft with collar and nut*



Fig. 1021 - *Shaft with collar and nut*



Fig. 1022 - *Shaft with collar and nut*



Fig. 1023 - *Shaft with collar and nut*



Fig. 1024 - *Shaft with collar and nut*



Fig. 1025 - *Shaft with collar and nut*



Fig. 1026 - *Shaft with collar and nut*



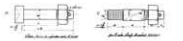
Fig. 1027 - *Shaft with collar and nut*



Fig. 1028 - *Shaft with collar and nut*

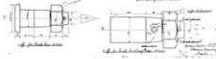
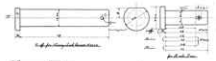
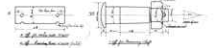
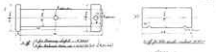
Handbook of Engineering

Notes for Class 3 Design



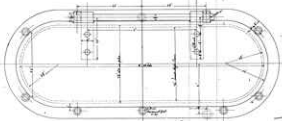
Notes for Class 4 Design

503-511



4727

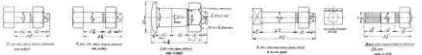
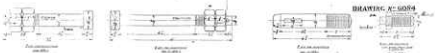
SOUTH AUSTRALIAN RAILWAYS
ENGINE CLASS T



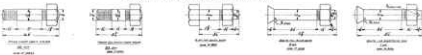
*Approved by the
L.C.C. - 1911*

*Approved by the
SOUTH AUSTRALIAN RAILWAYS
ENGINEERING DEPARTMENT
ADELPHI, S. A.*

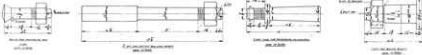
DETAILED

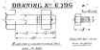


QUANTITIES SHOWN ARE FOR ONE LUG ONLY



ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SPECIFIED





QUANTITIES MARKED ARE FOR ONE LOAD ONLY



- BOLTS & NUTS CLASS 1 LOCK - 2-4 GAGE - SHEET NO. 2 -

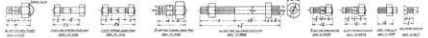
AMERICAN
STEEL & WIRE
ROPE CO. INC.
PITTSBURGH, PA.



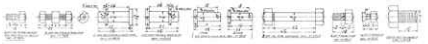
DRAWING NO. 613



QUANTITIES MARKED ARE FOR ONE BOX ONLY



ASSEMBLY AND DISASSEMBLY DRAWINGS



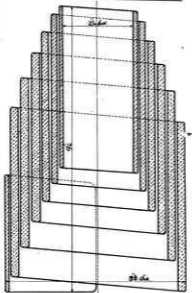
— BOLTS, C. FIN. CLASS. T. LOCK W. S. WASH. — SHEET NO. 2 —

AMERICAN
 LOCK WASHERS
 COMPANY, U.S.

SOUTH AUSTRALIAN RAILWAYS **6246**
TENDER CLASS T

Handwritten: 20/10/1905

3' 6" GAUGE

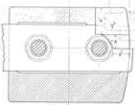
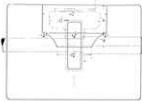


Uclule Spring for Tenders

Section of Metal

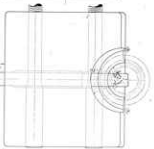


JAMES MARTIN & CO LIMITED
PHOENIX FOUNDRY
GAWLER, S. A.



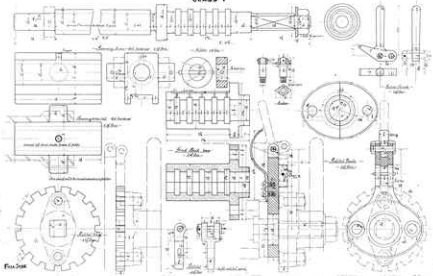
Drawing 100

- Center Bearing Assembly -
- & -
- Release Weight - Control Cable -
- Engine C. 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100

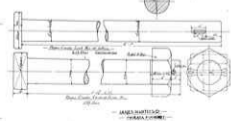
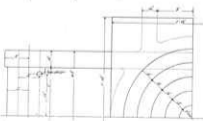
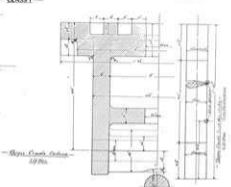
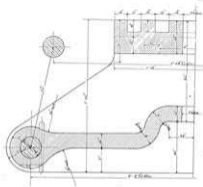


MADE IN U.S.A.
MADE IN U.S.A.
MADE IN U.S.A.

CLASS T

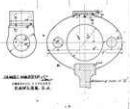
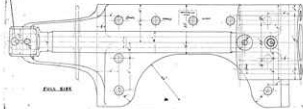
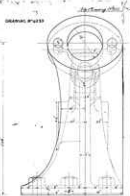
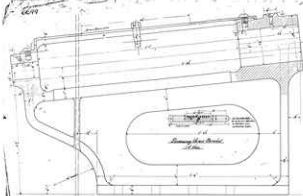


— CLASS I —



design

— MADE IN THE U.S.A. —
— HARRIS ENGINEERING CO. —
— GAITHERSBURG, M.D. —



RECEIVED
 JUNE 10 1918
 U.S. DEPARTMENT OF WAR
 ARMY HEADQUARTERS
 WASHINGTON, D.C.

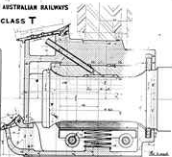
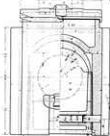
JAMES HARTY & CO.
 ENGINEERS
 NEWARK, N.J.

6700A

SOUTH AUSTRALIAN RAILWAYS

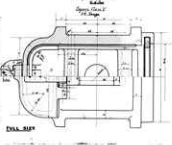
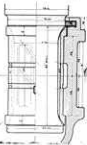
CLASS T

CHAIRS, A' SIZES



CHAIR, A' SIZES

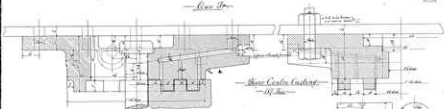
CLASS T



CHAIR, A' SIZES

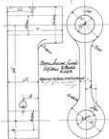
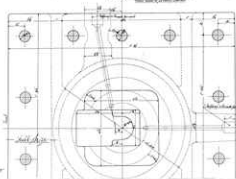
CLASS T

Class B



Spur Gear Cutting

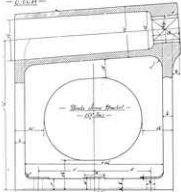
1/4 inch



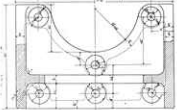
Spur Gear Cutting and Spur Gear

James Redhead
 Chief Engineer
 Railway Co.

- 17548 -

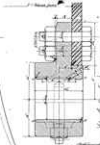
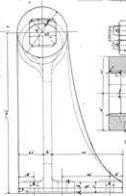


- Dish Iron Bracket -
- 10 1/2\"/>



- Dish, Shaft Bracket and Iron Bracket
- Brass Glass -
- L.C. Case -

- 17549 -

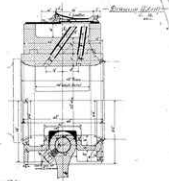
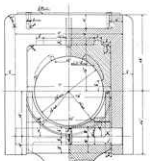


- Lever 10023 -



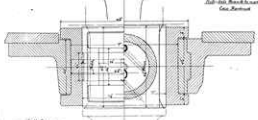
- Iron Bracket
- Brass Glass -
- L.C. Case -

- 1210 -



— 1210 for det —

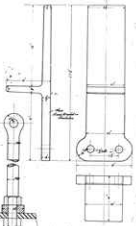
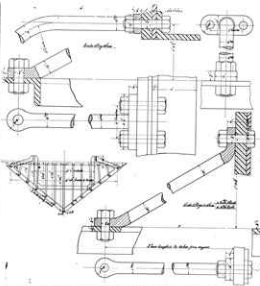
Left-Hand Thread to meet Standard
Gas Fittings



— Landing Landing Intermediate Landing Valve Box —
— Upper Box, I.C. Group —

From Standard
Change Drawing
1210-12

— 1210 —
1210

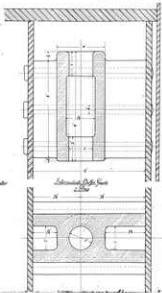
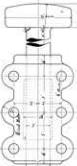


—*Condition of the material*—
 —*Level of the*—
 —*and the shape*—

MADE IN U.S.A.
 MODEL 47123
 1918

6783A

DRAWING N° 666

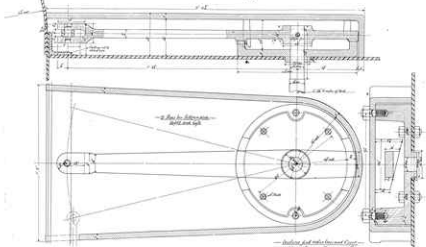


*Delivered by the author of the
first edition of the book
published in 1963*

1/2

-G152-

-Drawing of 1862-



-to the top of the frame-

-to the top of the frame and top of the drum-

-to the top of the frame and top of the drum-

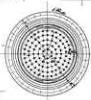
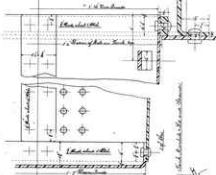
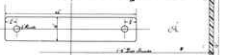
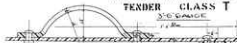
-to the top of the frame and top of the drum-

-to the top of the frame-

SOUTH AUSTRALIAN RAILWAYS
TENDER CLASS T

6793

SCALE 1/4" = 1'-0"

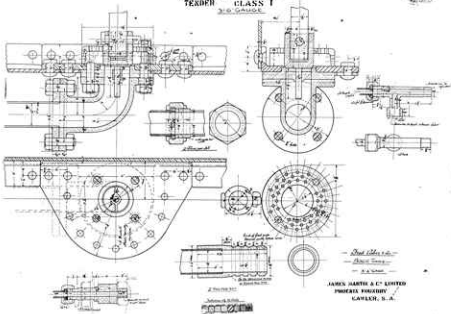


JAMES MARTIN & CO. LIMITED
PHOENIX FOUNDRY
GARDEN, S. A.



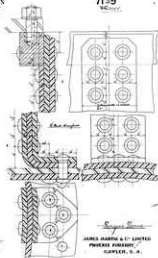
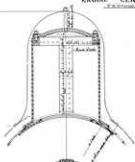
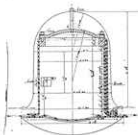
**SOUTH AUSTRALIAN RAILWAYS
TENDER CLASS T
3RD GAUGE**

6797A

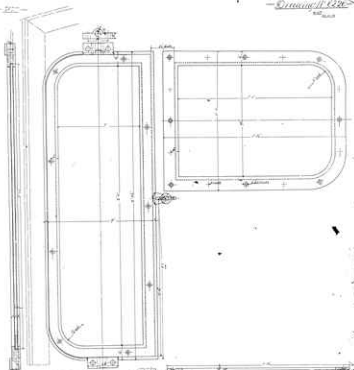


SOUTH AFRICAN RAILWAYS
 ENGINE CLASS T
 1903

7139
 1903



James Harro & Co. Limited
 ENGINEERS
 HARRO, S. A.

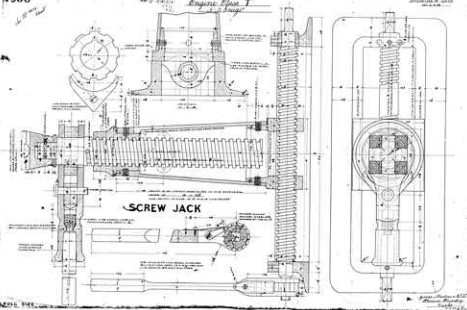


→ Chas. H. Loomis
Arch't

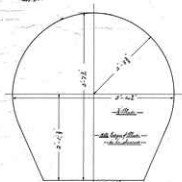
→ E. R. Loomis

→ Ed. Hendrick
- E. R. Loomis

JAMES HARTNEY
MECHANICAL
DRAWING
OFFICE
CLYDE, N. Y.



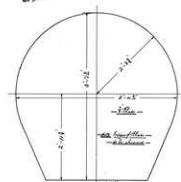
7662
View



all top of this
all bottom of this
-top of this 2'-0" deep-
LOCOMOTIVE DEPT
SOUTH AUSTRALIAN RY'S
-ADELDAIDE

-scale is 1/4" = 1 foot-

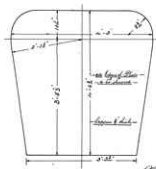
7662
View



all top of this
all bottom of this
-top of this 2'-0" deep-
LOCOMOTIVE DEPT
SOUTH AUSTRALIAN RY'S
-ADELDAIDE

-scale is 1/4" = 1 foot-

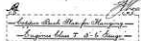
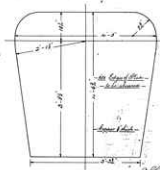
7663

Line

LOCOMOTIVE DEPT
SOUTH AUSTRALIAN RYS
- 22-23-24 ADELAIDE

- double 12 - 1/2 - 1/2 -

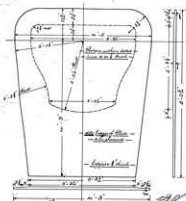
7663

Line

LOCOMOTIVE DEPT
SOUTH AUSTRALIAN RYS
- 22-23-24 ADELAIDE

- double 12 - 1/2 - 1/2 -

7664

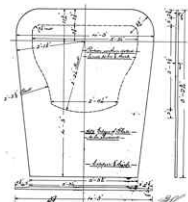


- Copper Tube Plate for Hanging -
 - Engine Class T 2-6' long -

LOCOMOTIVE DEPT
 SMITH AUSTRALIAN RYS
 - 22222 ADELAIDE

- sheet 1 of 1 -

7664

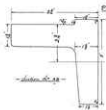
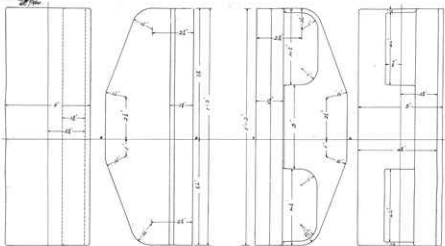


- Copper Tube Plate for Hanging -
 - Engine Class T 2-6' long -

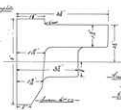
LOCOMOTIVE DEPT
 SMITH AUSTRALIAN RYS
 - 22222 ADELAIDE

- sheet 1 of 1 -

7680



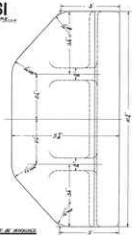
Handwritten note: This is a detail



- Last Seal Iron Plate -
 - Safety Valve -
 - Engine Valve & Valve
 LOCOMOTIVE DEPT
 BRITISH AUSTRALIAN STEEL CO. LTD. MELB. AUST.

7681

1/2" Scale



LOCOMOTIVE WHEEL PROFILE

Top and Side Views

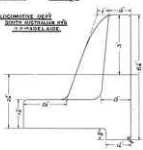
Profile View

Multiple Views

Figure 1

Figure 2

LOCOMOTIVE WHEEL
WITH DISTANCES FOR
IT TRACKSIDE



Side View

7684



Handwritten notes:
S.A. 7684
7684

Scale 5'-1" = 1"

Rough Turning Bearing Bush

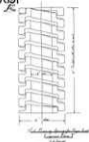
Class I Engines & L. Gauge

LOCOMOTIVE DEPT
SOUTH AUSTRALIAN RY'S
ENGINEER ADELAIDE

7684

FILE ~~7684~~ DRAWER.

7691



Vertical and
Horizontal Dimensions
in Inches

Scale

7691



Vertical and
Horizontal Dimensions
in Inches

Scale

7691



Vertical and
Horizontal Dimensions
in Inches

Scale

7691



Vertical and
Horizontal Dimensions
in Inches

Scale

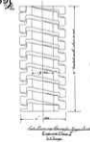
7691



Vertical and
Horizontal Dimensions
in Inches

Scale

7691



Vertical and
Horizontal Dimensions
in Inches

Scale

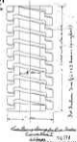
7691



Vertical and
Horizontal Dimensions
in Inches

Scale

7691



Vertical and
Horizontal Dimensions
in Inches

Scale

7693 *See 7624 in 2200*



See 7624 in 2200



Best Steel Wheel for Bigg's Road
Class T-1-6 Gauge

LOCOMOTIVE DEPT
SOUTH AUSTRALIAN RPS
ADRIEL SIDE

7/14/14



Best Steel Plate Road

Engine Class T

1 1/2 Gauge

LOCOMOTIVE DEPT
SOUTH AUSTRALIAN RPS
ADRIEL SIDE

See 7624 in 2200

7688A



Best Steel Plate Road
Engine Class T-3-6 Gauge
LOCOMOTIVE DEPT
SOUTH AUSTRALIAN RPS
ADRIEL SIDE

See 7624 in 2200

7688A

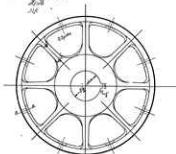


Best Steel Plate Road
Engine Class T-3-6 Gauge
LOCOMOTIVE DEPT
SOUTH AUSTRALIAN RPS
ADRIEL SIDE

See 7624 in 2200

7693A

*7693
1/11*



See 17110-17111-17112 for axle wheels to be used in future.



Section A-A

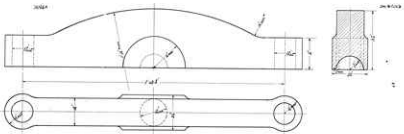


— Used at Port Phillip for the Tramway —

— Class T 3-4 Tramway —

— Full Size —

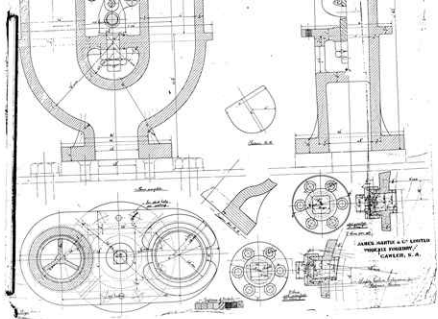
LOCOMOTIVE DEPOT
SOUTH AUSTRALIAN R.F.S. 7693
115, ADELAIDE
WHEELS & AXLES.



Front View
 100 mm
 10 mm

Top View

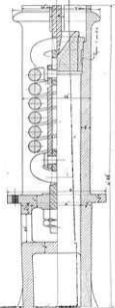
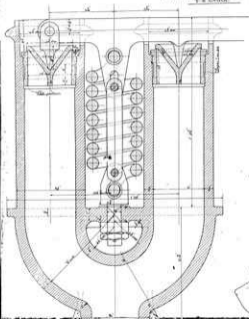
Section View
 10 mm
 25 mm
 100 mm



JAMES HARTY & CO LIMITED
NEWCASTLE UPON TYNE

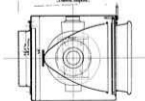
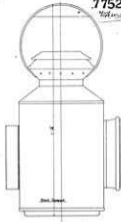
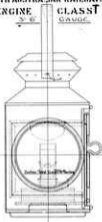
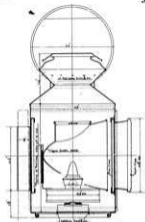
SOUTH AUSTRALIAN RAILWAYS
ENGINE CLASS T

7701
SOUTH AUSTRALIAN RAILWAYS



SOUTH AUSTRALIAN RAILWAYS
ENGINE CLASS T
3' 6" GAUGE

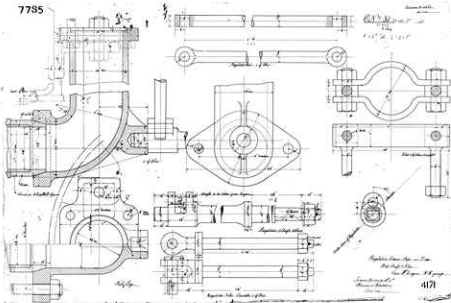
7752A
Volume



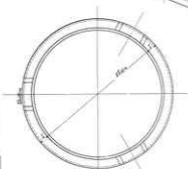
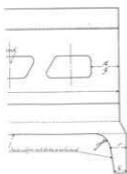
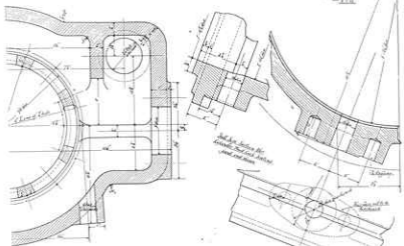
See Book for Diagrams

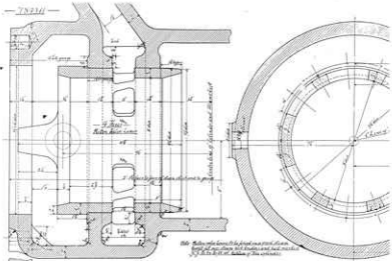
JAMES MARTIN & CO LIMITED
PHOENIX FOUNDRY,
GAWLER, S. A.

7785

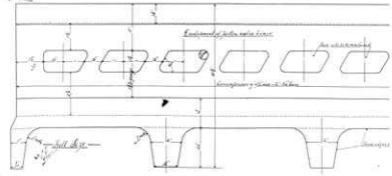


4171





100. Refer to the drawing of the turbine section for the details of the turbine and the casing. The drawing is for the turbine section.

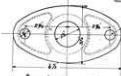
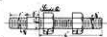
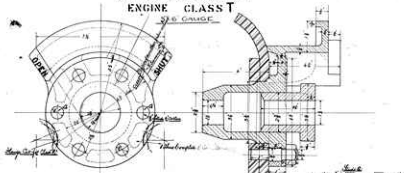


Longitudinal section of blades

Longitudinal section of the turbine section

SOUTH AUSTRALIAN RAILWAYS
ENGINE CLASS T

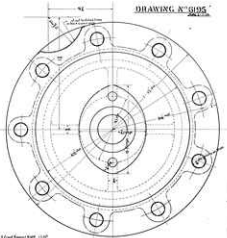
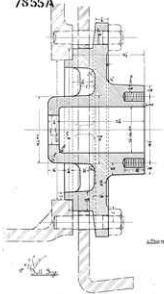
7852
KING



Regulator Valve Gear
JAMES HARTN & CO LIMITED
PHOENIX WORKS
GAWLER, S. A.

7855A

DRAWING N° 0105

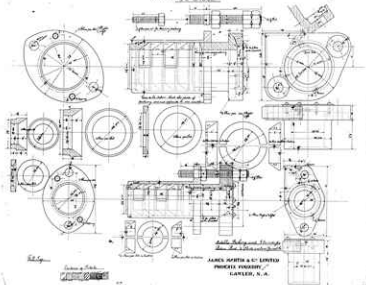


Material: 1/2 inch diameter steel

Steel Plate
 1/2 inch thick
 1/2 inch diameter
 1/2 inch diameter
 1/2 inch diameter

SOUTH AUSTRALIAN RAILWAYS
ENGINE CLASS T
J. H. SCOTT

7857

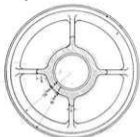
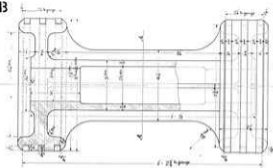


South Australian Railways
JAMES HARTN & CO LIMITED
ENGINEERS
GAWLER, S. A.



785913

DRAWING N° 6097

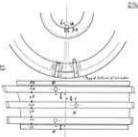


Section View B-B

2/2007

Each drawing is to be made in accordance with the standards of the American Institute of Mechanical Engineers.

Scale 1/4" = 1" unless otherwise specified. For patterns and dies, scale 1/8" = 1" unless otherwise specified. All dimensions are given in inches unless otherwise specified.



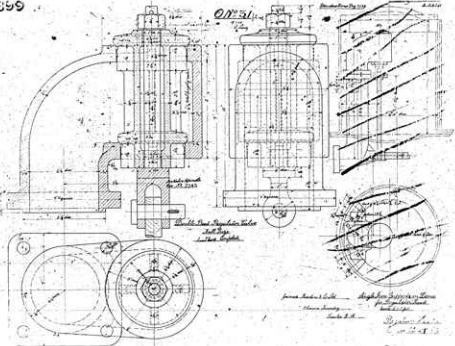
PISTON, VALVE
ENGINES, CLASS T
3 G GAUGE

WALSH MANUFACTURING
CORPORATION
GARDEN CITY, N.Y.

6097

1899

Q1731



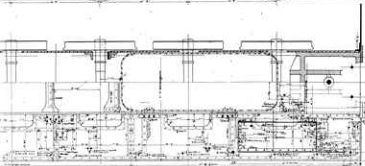
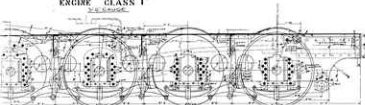
Roll Over Register Table
 Set Top
 L. H. G. 1/2

James H. ...
 ...
 ...
 ...
 ...

SOUTH AUSTRALIAN RAILWAYS
ENGINE CLASS T

2-6-2

7947

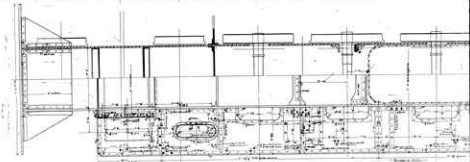
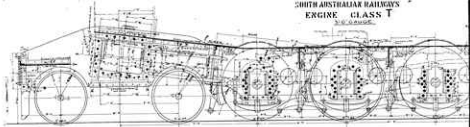


ALEX. MARTIN & CO. LIMITED
PROGRESS FERRY
GAWLER, S. A.

7947

SOUTH AUSTRALIAN RAILWAYS
ENGINE CLASS T

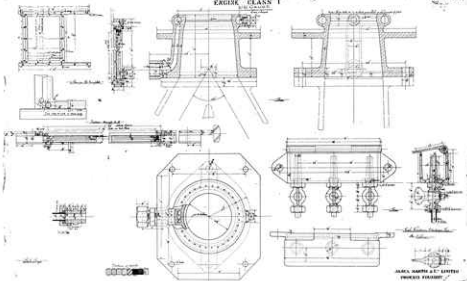
21000000



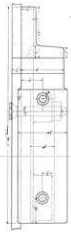
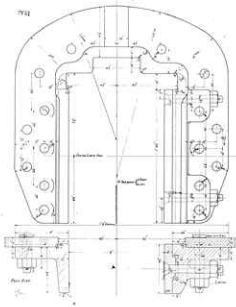
1900

NORTH AUSTRALIAN RAILWAYS
ENGINE CLASS T

7567 A

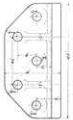


BLACK, SMITH & CO. LIMITED
ENGINEERS
LONDON, E. C.

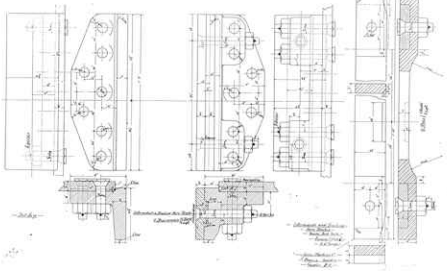


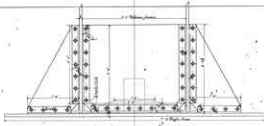
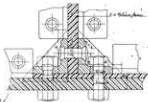
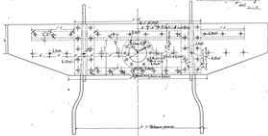
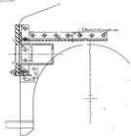
Technical drawing showing a side view of a mechanical component with a central shaft and various features.

Technical drawing showing a top view of a mechanical component with a central shaft and various features.



Technical drawing showing a top view of a mechanical component with a central shaft and various features.





— *Enrico 11.1.1907* —

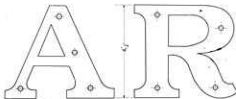
— *11.1.1907* —

— *Basic Diagram and Shop Plates* —
— *Enrico 11.1.1907* —

— *Enrico 11.1.1907* —
— *11.1.1907* —

7979

Drill Hole



Drill (see notes)

External Mounting Hole

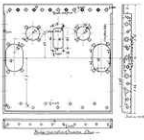
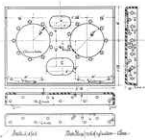
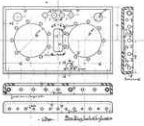
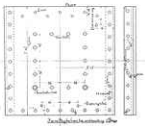
Cap & Base Hole

Drill Hole

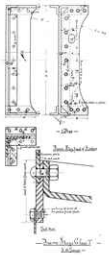
Full Size

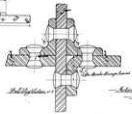
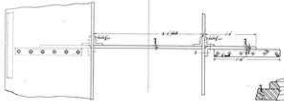
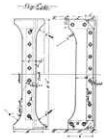
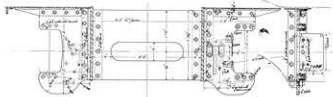


7980



DRAWING N-6472





Handwritten label

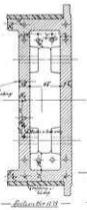
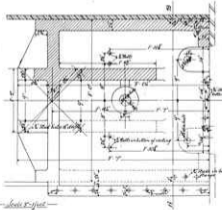
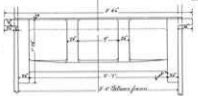
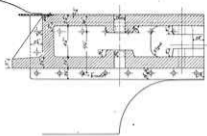
Handwritten label

Handwritten label

Handwritten label

-3001-

-Drawing of 11/11/16
10/2/16



-Scale 1/4" = 1'-0"

-Reference 11/11

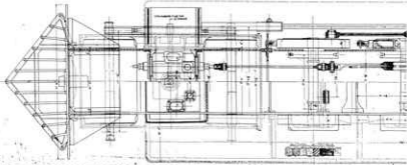
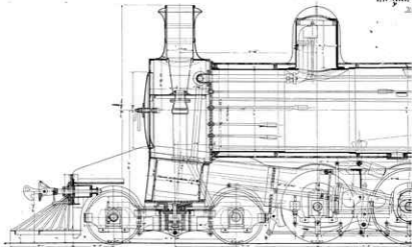
-Process Cast Iron Footplate -
Class 1, Cupress 1 1/2" Gauge

-James Watson & Co.
Engineers, Glasgow, Scotland

G126

SOUTH AUSTIN

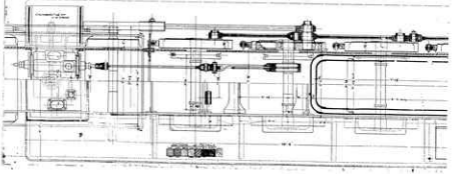
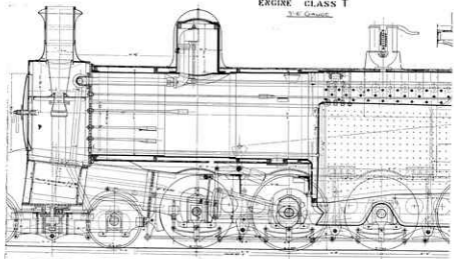
ENGINE

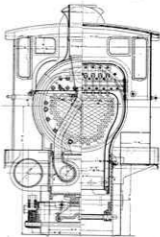
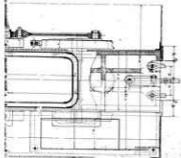
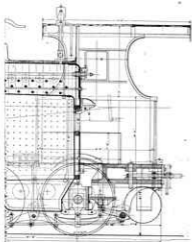


SOUTH AUSTRALIAN RAILWAYS

ENGINE CLASS T

3' 6" GAUGE



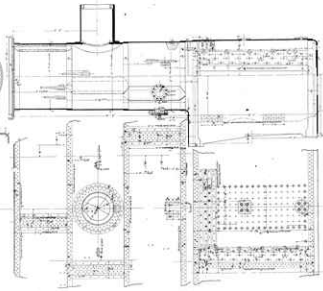


Central Arrangement	
Boiler diameter	18
Boiler length	18
Boiler thickness	1/2
Boiler weight	100
Boiler pressure	100
Boiler material	Steel
Boiler joints	Welded
Boiler fittings	Steel
Boiler valves	Steel
Boiler pipes	Steel
Boiler supports	Steel
Boiler foundations	Concrete
Boiler accessories	Steel
Boiler controls	Steel
Boiler safety	Steel
Boiler efficiency	80%
Boiler cost	\$1000
Boiler life	20 years
Boiler maintenance	Annual
Boiler operation	Simple
Boiler installation	Easy
Boiler removal	Easy
Boiler transport	Easy
Boiler storage	Easy
Boiler disposal	Easy

CENTRAL ARRANGEMENT.

JAMES HARTIS & CO. LIMITED
 ENGINEERS
 GAVLER, S.

8005A

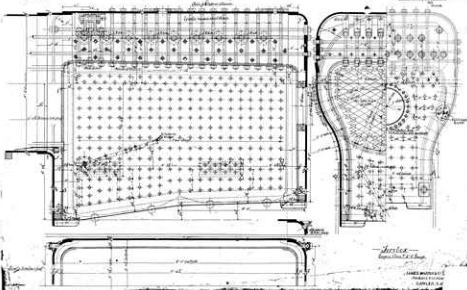


—Drawing (DCC)



Scale
1/2" = 1"

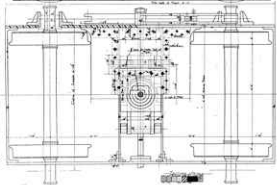
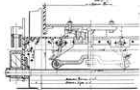
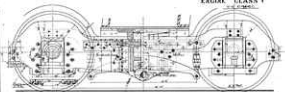




James Watt
 James Watt & Co.
 Glasgow
 James Watt & Co.
 Glasgow

SOUTH AUSTRALIAN RAILWAYS
ENGINE CLASS T

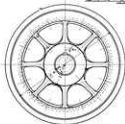
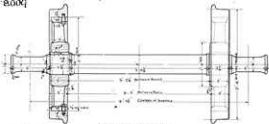
8007



Design of Shop
JAMES HART & CO. ENGINEERS
RAILWAY ENGINEERS
CANTON, N. A.

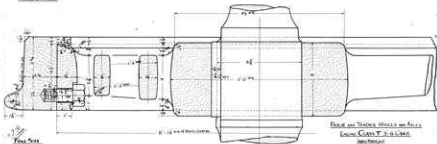
8007

Drawing No. 552



Scale 1/4" = 1"

— 6-1/2" Center to the Set —

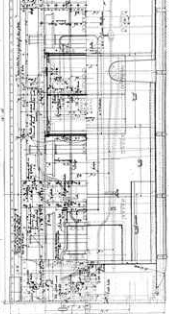
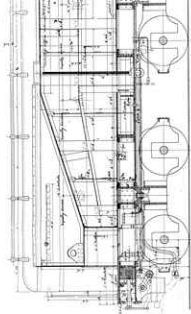


Drawn and Checked by J. H. H. H.

Engr. Class T. J. H. H.

Wm. H. H. H.
Mechanical
Drawing

SOUTH SIDE
TRENCH



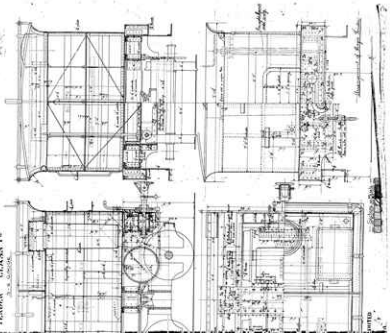
Scale of 1/8" = 1'-0"

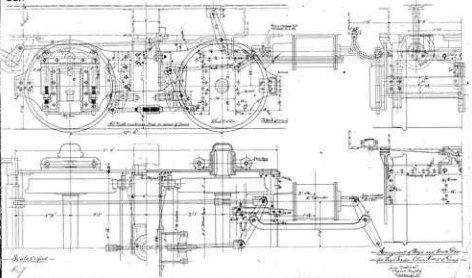
JAMES MARTIN & CO LIMITED
PROPOSED FACTORY
CARTER, N. A.

**SOUTH AUSTRALIAN RAILWAYS
TENDER CLASS Tc**

30.5. 1905

8 010





All parts mounted on a cast-iron base

Water

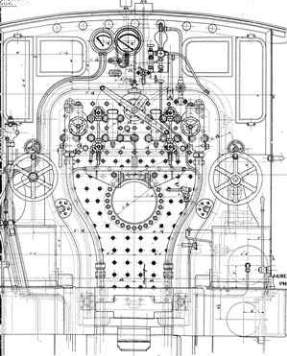
Steam

Sketch

4

Diagram of the engine and pump for the purpose of showing the arrangement of the parts

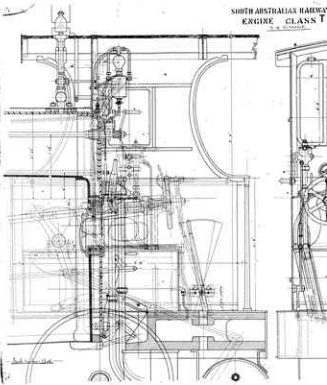
Wm. H. ...

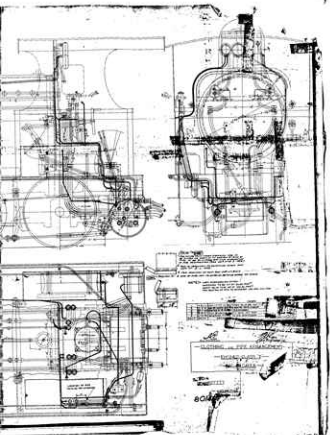


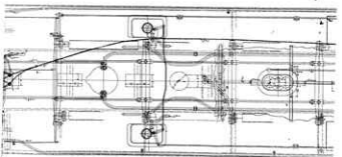
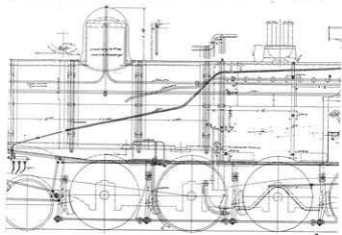
JAMES BARTLE & CO.
STEAM ENGINEERING
NEWCASTLE, N.S.W.

PLAINS

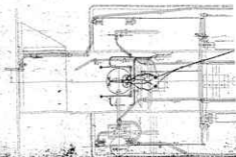
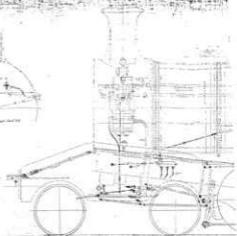
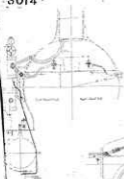
SOUTH AUSTRALIAN RAILWAY
ENGINE CLASS T





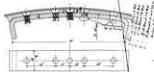
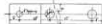
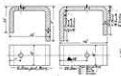
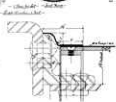
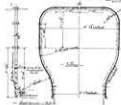


S014



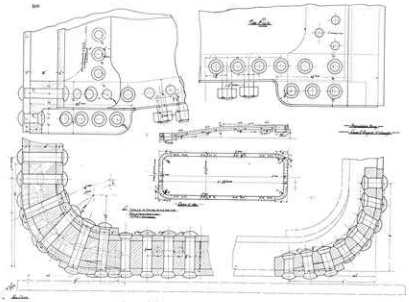
- 1000 -

- Drawing 1000 -



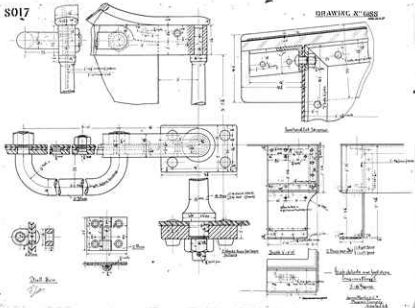
- Old Style Detail -
 - Same One -
 - 1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97. 98. 99. 100.

- 1000 -
 - 1000 -
 - 1000 -



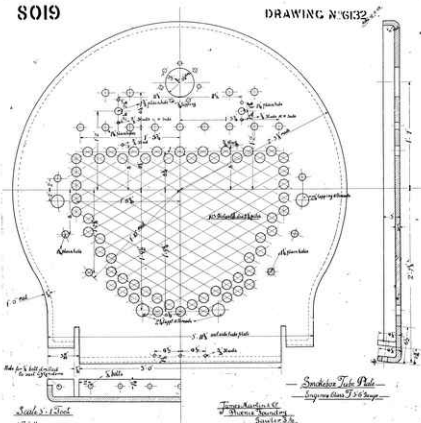
S017

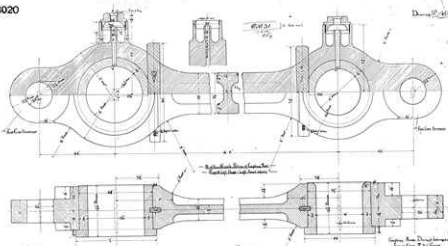
DRAWING N° 688



S019

DRAWING N° 6132





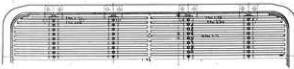
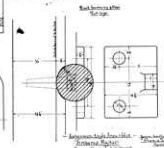
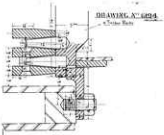
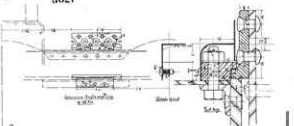
- 2 Cap Pin Grooves of Cap Pin Groove
 - Cap Pin Groove Cap Pin Groove

Cap Pin Groove Drawing
 Date [Blank]
 [Signature]
 [Signature]

2.1.5

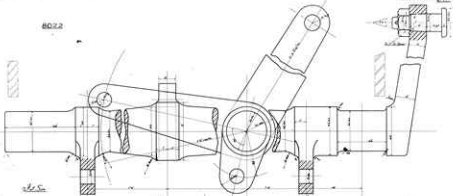
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DRAWING NO. 4021-1

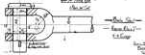
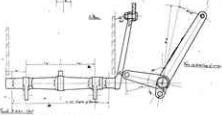


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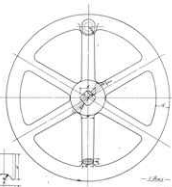
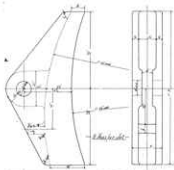
8022



0.5



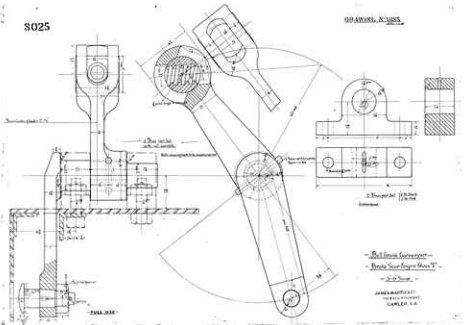
Steel
Cast Iron



— Blade, Wheel and Handle —
— from the U.S.A. —
— from the U.S.A. —
— from the U.S.A. —

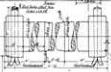
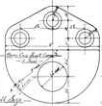
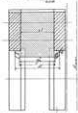
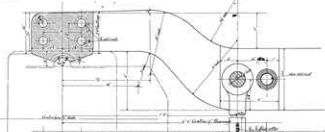
8025

DRAWING A-1085



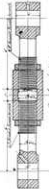
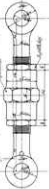
- Red Iron Castings -
- Brass Six Finger Brass T -
- S.S. Screws -

MANUFACTURED BY
 THE
 COMPANY

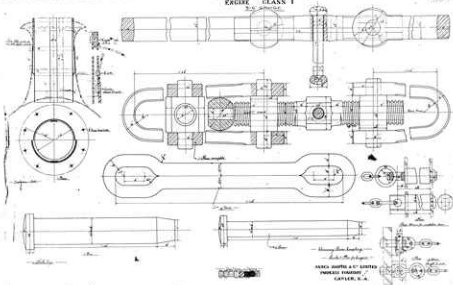


Eight Spring Pins Case Shaft - Corvallis
 - Hollow Pin 1/2 Dia.

See Attached
 Drawing No. 218
 - 322 -

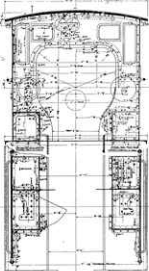
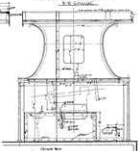
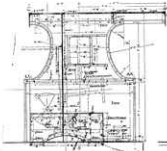


See Attached
 Drawing No. 218



SOUTH AUSTRALIAN RAILWAYS
ENGINE CLASS T

8028A 8028



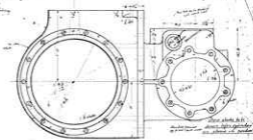
Scale 1/4 inch = 1 foot

JAMES HARTIG & CO LIMITED
ENGINEERS & FOUNDRY
GAWLER, S. A.

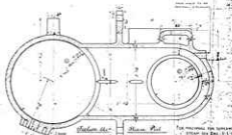
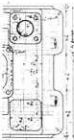
Copyright 1914
JAMES HARTIG & CO LIMITED

AUSTRALIAN RAILWAYS
GINE CLASS T
 5' 6" GAUGE

8029



See listing on back of cylinder



1000
 1000

Cylinder

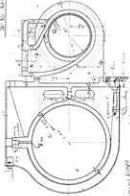
1000
 1000

| | | | | |
|--------------|--------------|--------------|--------------|--------------|
| 1000
1000 | 1000
1000 | 1000
1000 | 1000
1000 | 1000
1000 |
|--------------|--------------|--------------|--------------|--------------|

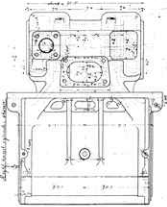


SOUTH AUSTRALIAN RAILWAYS ENGINE CLASS T

S. O. GIBSON



Technical drawing showing a side view of a cylindrical component, possibly a boiler or tank, with various internal and external features labeled with letters and numbers.



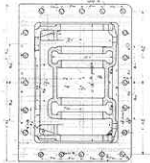
NOTE - FOR ALTERATION IN COLLAR TO SUIT LINES
SEE DES. NO. 24-L-52

Approved

W. E. Gibson, S. O. Gibson

| | |
|-------------|--------------|
| DESIGNED BY | S. O. GIBSON |
| CHECKED BY | W. E. GIBSON |
| APPROVED BY | W. E. GIBSON |
| DATE | 1911 |

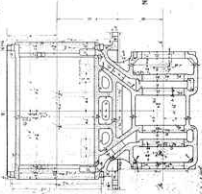
W. E. Gibson



Scale: 1/2"

Dimensions are approximate
 and subject to change

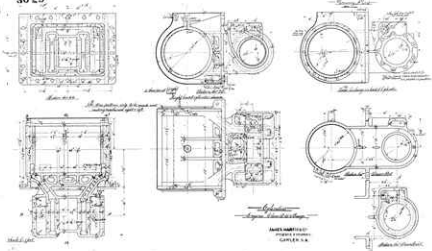
Approximate
 dimensions



NOTE - FOR ALTERATION TO C.O.P.
 SEE Dwg. No. 24-

| | | | |
|--|--|--|--|
| | | | |
| | | | |
| | | | |
| | | | |

80 29



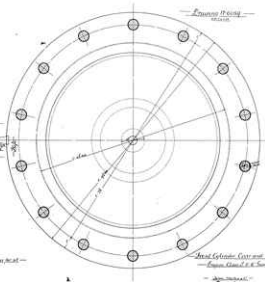
*Original
by hand-drawn*

AMERICAN
MACHINE & TOOL
COMPANY, U.S.A.

— BASE —

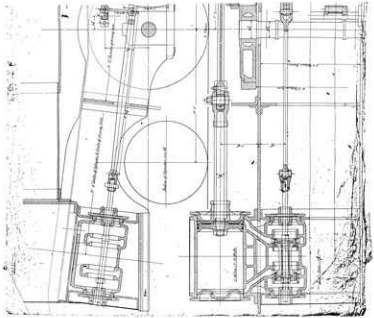


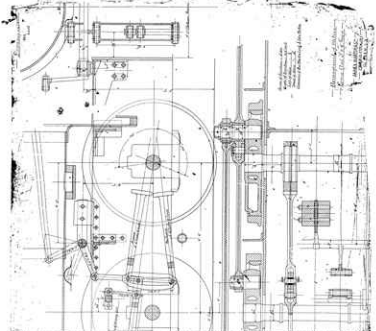
— Drawing Point —



— Small Cylinder Gear and Plate —
— Engine Case, C. & S. —

— Liberty, Inc. —
— New York, N. Y. —



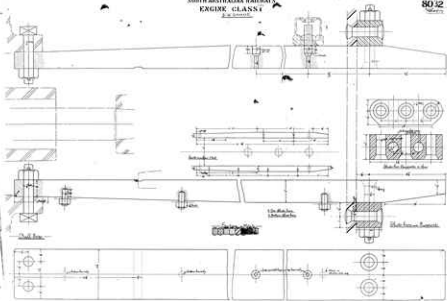


View of the cylinder
 and piston
 and valve gear
 and connecting rods
 and crankshaft

Drawing of the
 engine mechanism
 showing the
 cylinder, piston,
 valve gear,
 connecting rods,
 and crankshaft.

SOUTH AUSTRIAN RAILWAYS
ENGINE CLASS I
(Lokomotiv)

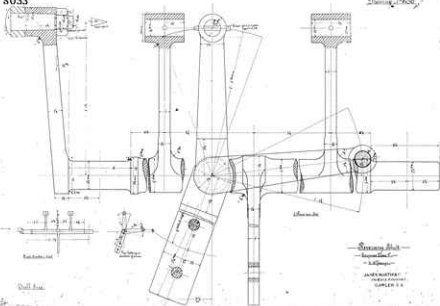
8032
1907



BAIRD PATERSON & CO. LIMITED
ENGINEERS
GLASGOW, S. A.

8033

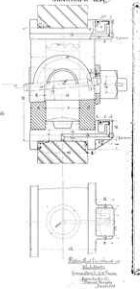
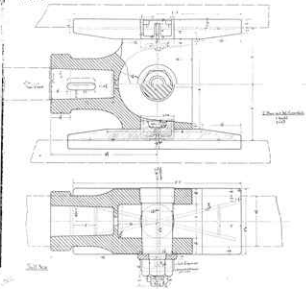
Drawing of No. 1

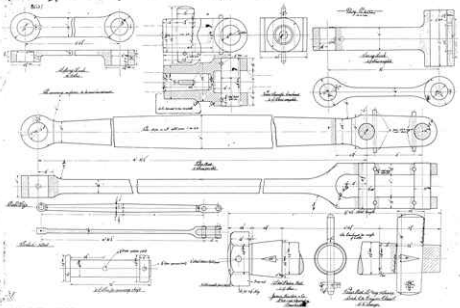


—*Signature*—
—*Signature*—
—*Signature*—
J. H. MOTT
CORNELL UNIVERSITY
IOWA CITY, IOWA

8035

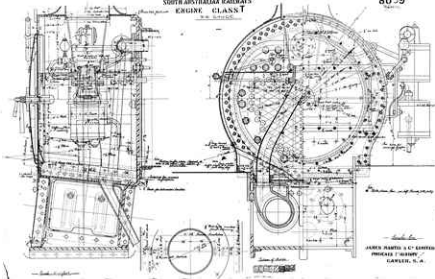
DIAPHRAGM A' 654





SOUTHERN RAILROAD RAILWAYS
ENGINE CLASS T

8039

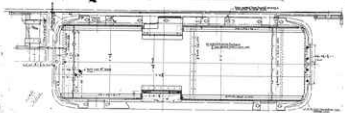
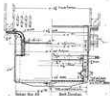
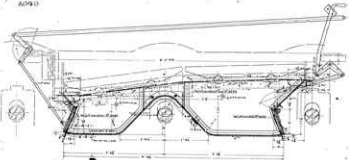


JOHN BARTON & CO. ENGINEERS
PHILADELPHIA, PA.

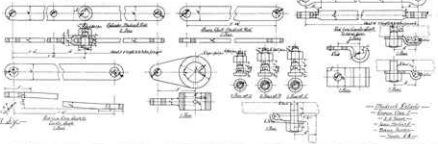
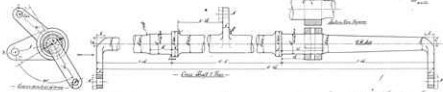
2090

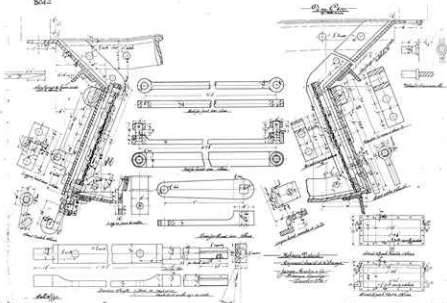
2090

10



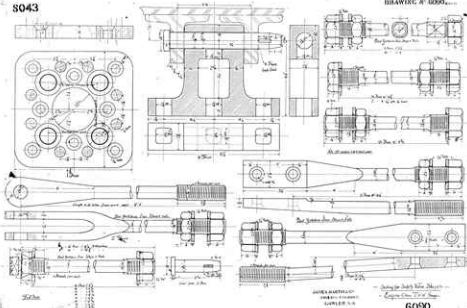
ASHTON
 Mechanical Engineers
 10, Abchurch Lane
 London, E.C. 4





8043

DRAWING # 4000...

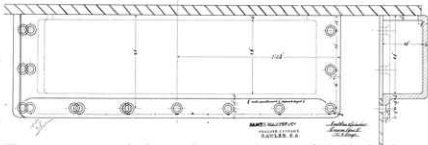
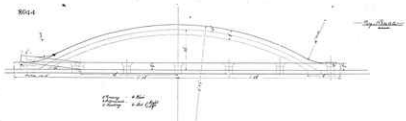


JAMES HARTMAN
ENGINE COMPANY
CLEVELAND, O. A.

Drawing for 30.06 in. Barrel
Explosive Test No.

6090

800-4

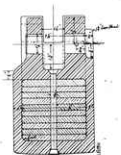


SOUTH AUSTRALIAN RAILWAYS
ENGINE CLASS T

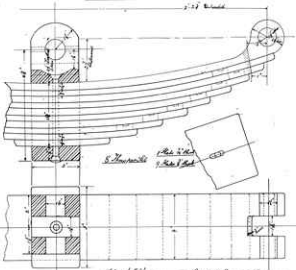
8045

24/10/1911

BY G. GIBSON



to be made by
Ed. J. P.



to be made by
Ed. J. P.

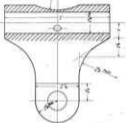


Coupled Spring for Engine

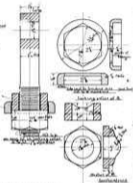
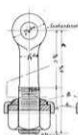
JAMES MARTIN & CO LIMITED
PROPRIETORS
GAWLER, N. A.

S046

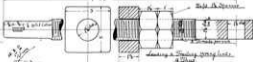
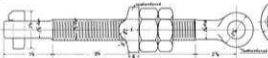
DRAWING N° 63



Spring hanger
 Height 20 mm tolerance

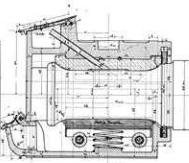
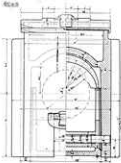


Hook for spring hanger
 2.5 mm diameter

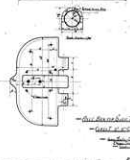
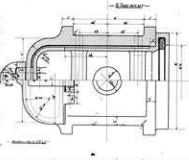
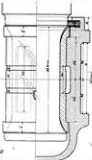


Spring hanger chain
 Height 20 mm tolerance
 1/2 mm tolerance
 1/2 mm tolerance

—Drawing Sheet—
—No. 1—

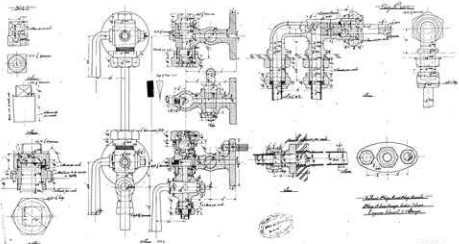


—Dimension—



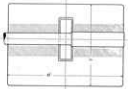
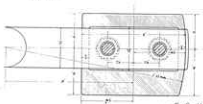
—The Drawing Sheet—
—No. 1—
—Drawing—

Handwritten signature or initials

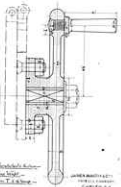
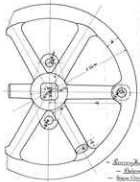
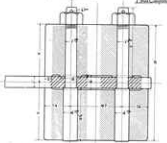


Handwritten notes:
 The design is for
 the engine for the
 Type 100 engine

S052



MEASURING S' 14100

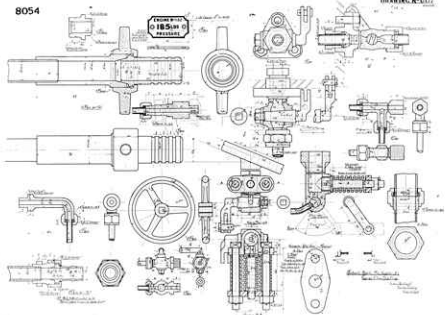


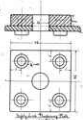
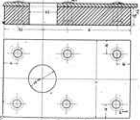
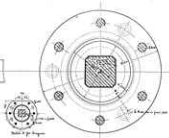
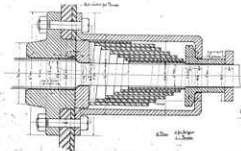
- Spring-Loaded Valve -
- Relief Valve -
- Steam Valve -

Copyright 1914
by
C. H. S. Co.

8054

DRAYER N° 6177

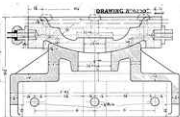
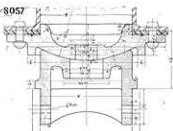




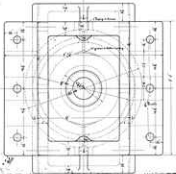
Single Bolt Holes for
Control Shaft Assembly
When Supply from the
Shop, Verify Dimensions
of
Bolt Holes
and
Central Hole

Scale 1/2" = 1" - 1/2" (1:2)

8057



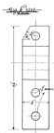
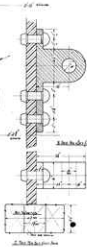
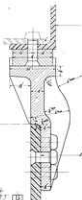
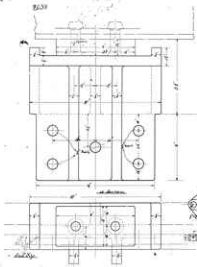
- This Part -



— CENTER PIV. COUPLING —
 — FOR BOGE TANKS —
 — ENGINE CLASS T. S. & G. —

AMERICAN
 ENGINEERING
 COMPANY

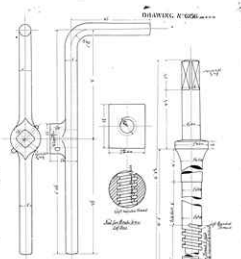
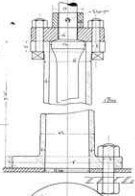
FULL SIZE



- 1/2" dia. hole
 - 1/4" dia. hole
 - 1/8" dia. hole
 - 1/16" dia. hole



See for Bolt Dimensions and
Notes

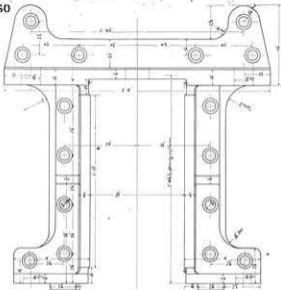


- Spring
- Bolt and Nut
- Pipe
- Flange
- Gasket

FULL SIZE



8060



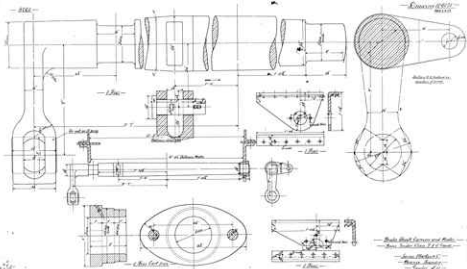
DRAWING X-661



- Detail -

- Cast Steel Iron Plugs
 - for Base Section Class B
 - 1-2-3-4-5-6-7-8-9-10-11-12-13-14-15-16-17-18-19-20-21-22-23-24-25-26-27-28-29-30-31-32-33-34-35-36-37-38-39-40-41-42-43-44-45-46-47-48-49-50-51-52-53-54-55-56-57-58-59-60-61-62-63-64-65-66-67-68-69-70-71-72-73-74-75-76-77-78-79-80-81-82-83-84-85-86-87-88-89-90-91-92-93-94-95-96-97-98-99-100-101-102-103-104-105-106-107-108-109-110-111-112-113-114-115-116-117-118-119-120-121-122-123-124-125-126-127-128-129-130-131-132-133-134-135-136-137-138-139-140-141-142-143-144-145-146-147-148-149-150-151-152-153-154-155-156-157-158-159-160-161-162-163-164-165-166-167-168-169-170-171-172-173-174-175-176-177-178-179-180-181-182-183-184-185-186-187-188-189-190-191-192-193-194-195-196-197-198-199-200-201-202-203-204-205-206-207-208-209-210-211-212-213-214-215-216-217-218-219-220-221-222-223-224-225-226-227-228-229-230-231-232-233-234-235-236-237-238-239-240-241-242-243-244-245-246-247-248-249-250-251-252-253-254-255-256-257-258-259-260-261-262-263-264-265-266-267-268-269-270-271-272-273-274-275-276-277-278-279-280-281-282-283-284-285-286-287-288-289-290-291-292-293-294-295-296-297-298-299-300-301-302-303-304-305-306-307-308-309-310-311-312-313-314-315-316-317-318-319-320-321-322-323-324-325-326-327-328-329-330-331-332-333-334-335-336-337-338-339-340-341-342-343-344-345-346-347-348-349-350-351-352-353-354-355-356-357-358-359-360-361-362-363-364-365-366-367-368-369-370-371-372-373-374-375-376-377-378-379-380-381-382-383-384-385-386-387-388-389-390-391-392-393-394-395-396-397-398-399-400-401-402-403-404-405-406-407-408-409-410-411-412-413-414-415-416-417-418-419-420-421-422-423-424-425-426-427-428-429-430-431-432-433-434-435-436-437-438-439-440-441-442-443-444-445-446-447-448-449-450-451-452-453-454-455-456-457-458-459-460-461-462-463-464-465-466-467-468-469-470-471-472-473-474-475-476-477-478-479-480-481-482-483-484-485-486-487-488-489-490-491-492-493-494-495-496-497-498-499-500-501-502-503-504-505-506-507-508-509-510-511-512-513-514-515-516-517-518-519-520-521-522-523-524-525-526-527-528-529-530-531-532-533-534-535-536-537-538-539-540-541-542-543-544-545-546-547-548-549-550-551-552-553-554-555-556-557-558-559-560-561-562-563-564-565-566-567-568-569-570-571-572-573-574-575-576-577-578-579-580-581-582-583-584-585-586-587-588-589-590-591-592-593-594-595-596-597-598-599-600-601-602-603-604-605-606-607-608-609-610-611-612-613-614-615-616-617-618-619-620-621-622-623-624-625-626-627-628-629-630-631-632-633-634-635-636-637-638-639-640-641-642-643-644-645-646-647-648-649-650-651-652-653-654-655-656-657-658-659-660-661-662-663-664-665-666-667-668-669-670-671-672-673-674-675-676-677-678-679-680-681-682-683-684-685-686-687-688-689-690-691-692-693-694-695-696-697-698-699-700-701-702-703-704-705-706-707-708-709-710-711-712-713-714-715-716-717-718-719-720-721-722-723-724-725-726-727-728-729-730-731-732-733-734-735-736-737-738-739-740-741-742-743-744-745-746-747-748-749-750-751-752-753-754-755-756-757-758-759-760-761-762-763-764-765-766-767-768-769-770-771-772-773-774-775-776-777-778-779-780-781-782-783-784-785-786-787-788-789-790-791-792-793-794-795-796-797-798-799-800-801-802-803-804-805-806-807-808-809-810-811-812-813-814-815-816-817-818-819-820-821-822-823-824-825-826-827-828-829-830-831-832-833-834-835-836-837-838-839-840-841-842-843-844-845-846-847-848-849-850-851-852-853-854-855-856-857-858-859-860-861-862-863-864-865-866-867-868-869-870-871-872-873-874-875-876-877-878-879-880-881-882-883-884-885-886-887-888-889-890-891-892-893-894-895-896-897-898-899-900-901-902-903-904-905-906-907-908-909-910-911-912-913-914-915-916-917-918-919-920-921-922-923-924-925-926-927-928-929-930-931-932-933-934-935-936-937-938-939-940-941-942-943-944-945-946-947-948-949-950-951-952-953-954-955-956-957-958-959-960-961-962-963-964-965-966-967-968-969-970-971-972-973-974-975-976-977-978-979-980-981-982-983-984-985-986-987-988-989-990-991-992-993-994-995-996-997-998-999-1000

FULL SIZE



— 1.000 —

— 1.500 —

— 1.000 —

— 1.000 —

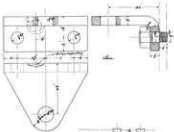
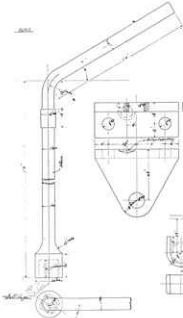
— 1.000 —

— 1.000 —

— 1.000 —

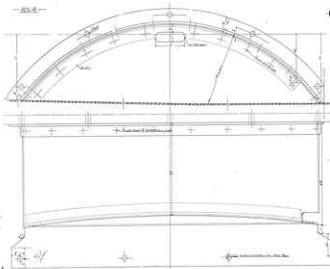
— 1.000 —

George B. ...

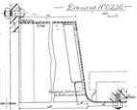


Technical drawing of a mechanical assembly, showing various components and dimensions.

- 252 -



- Drawing No. 252 -



- 252 -

- See the plan of the dome -

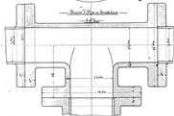
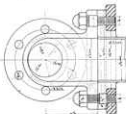
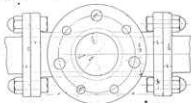
- See the plan of the dome -

1/2 - 252 -

1/2 - 252 -

8065

DRAWING N° 1030



Scale of drawing for the flange
1/2" = 1"

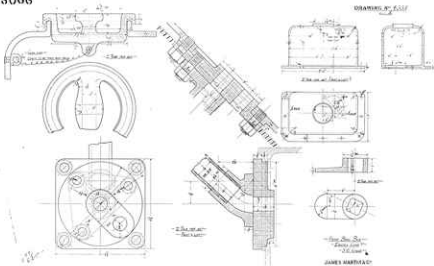


STEAM PIPE FLANGES -
ENGINE CLASS T
3" - GAGE

JOHN BENTLEY
DESIGNED
JAMES H. BENTLEY
DRAWN

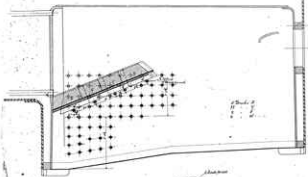
8066

DESIGNED BY G. L. LEE



JAMES HERRICK
MECHANICAL ENGINEER
GAWLER, S.A.

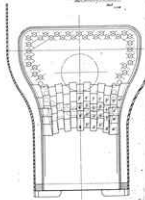
— 1057 —



— Aufsicht —



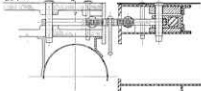
— Entwurf N. 1057 —



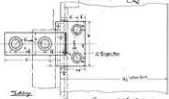
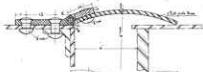
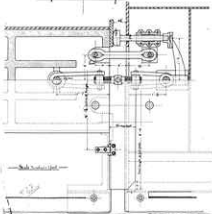
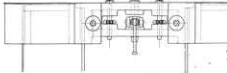
— Aufsicht —
— Aufsicht —
— Aufsicht —

— Entwurf N. 1057 —

5070

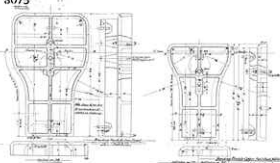


Doc. N° 637

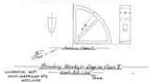
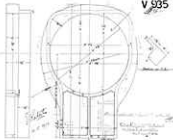


— Support of rollers —
 — Sub-assembly —
 — Roller —

8075

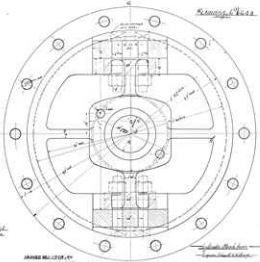


V 535



8136

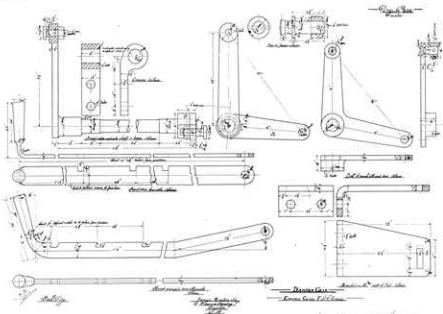
Comp. 11.4.4



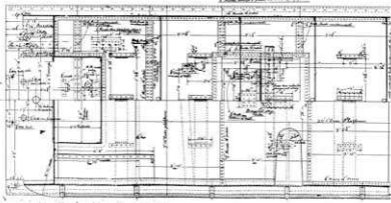
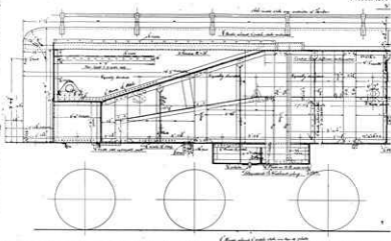
*2. Design for
 Standard Bolt and Nut
 Specifications*

JAMES MILLER, JR.
 CHICAGO, ILL.
 TAYLOR, O.R.

*1. Design for
 Standard Bolt and Nut
 Specifications*



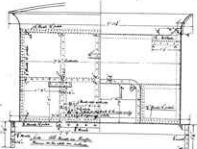
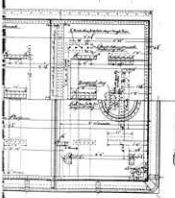
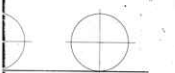
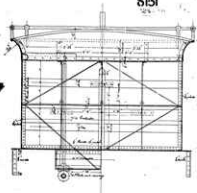
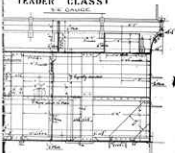
**SOUTH AIRST
TENDER**



SOUTH AUSTRALIAN RAILWAYS
TENDER CLASS T

56 GAUGE

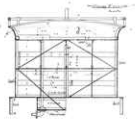
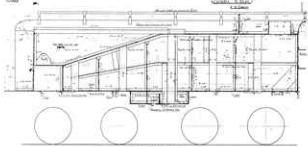
8151

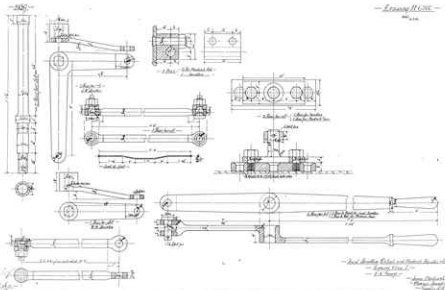


Arrangement of parts of Bogie Frame

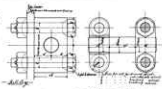
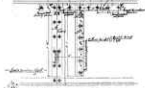
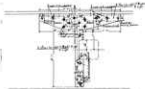
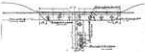
JAMES HART & CO LIMITED
ENGINEERS
GAWLER, S. A.

Section of the
Lumber





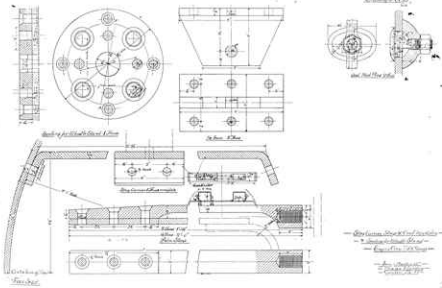
- See Drawing of this and other drawings in
- Appendix A -
- L. S. Smith -
- See Drawing of this and other drawings in
- Appendix A -
- L. S. Smith -

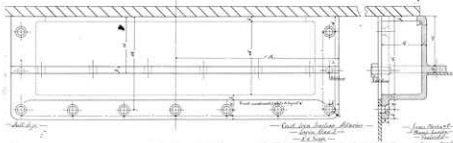
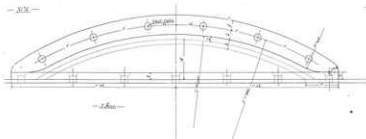


- Motion of the
- of the
- of the

- See the
- of the
- of the

SK-7A

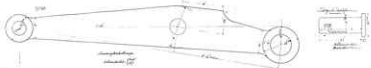




- A-A -

- Cast Iron Section Above
- Iron Rod -
- A-A -

- Iron Rod -
- Iron Rod -
- Iron Rod -



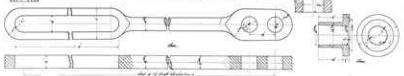
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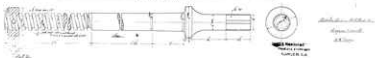
Detail of groove



Longitudinal section of shaft (2)



Detail of U-shaped groove



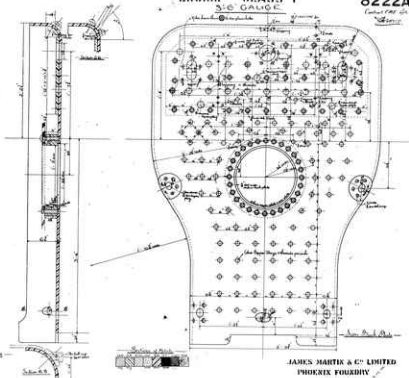
Detail of groove

© 1910 National
Machine Company
MILWAUKEE, WIS.

SOUTH AUSTRALIAN RAILWAYS
ENGINE CLASS T
3'6" GAUGE

8222
8222A

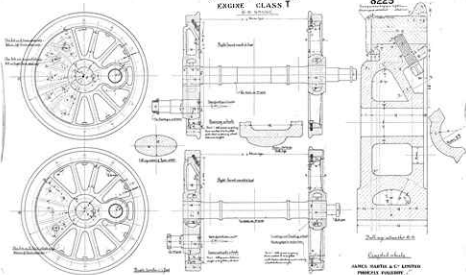
Contract P.M.T. 4/11
1911



JAMES MARTIN & CO LIMITED
PHOENIX FOUNDRY
GAWLER, S. A.

NORTH AUSTRALIAN RAILWAYS
ENGINE CLASS T

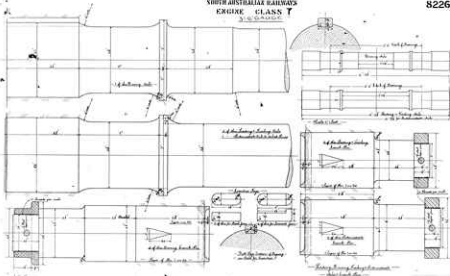
8225



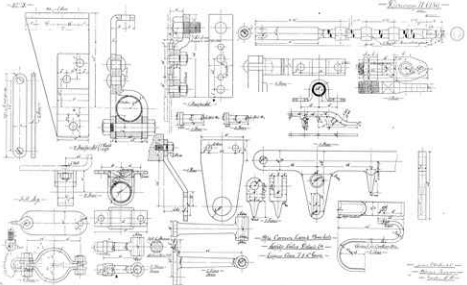
MANUFACTURED BY
CARRINGTON & COMPANY
ENGINEERS
DUNEDIN, N.Z.

SOUTH AUSTRALIAN RAILWAYS
 ENGINE CLASS T
 21000000

8226



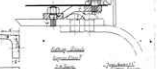
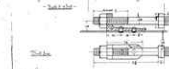
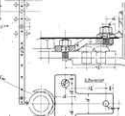
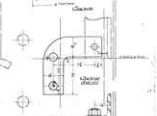
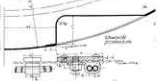
JAMES MATHESON & CO. LIMITED
 ENGINEERS
 GARDEN, S. A.

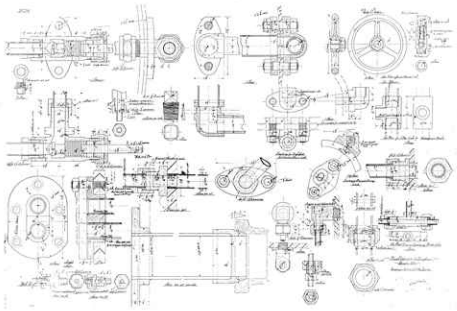


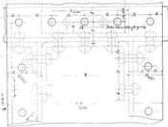
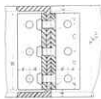
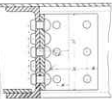
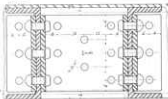
- The Lower Long Rods -
 - Key, like shown -
 - Lower Rod 11.5 cm -

- 1/2" Dia. -
 - 1/4" Dia. -
 - 1/8" Dia. -

Blatt 10 113





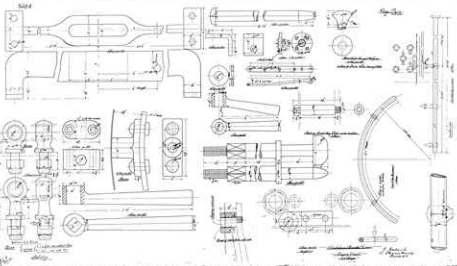


Section of the component



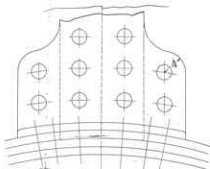
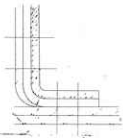
Section of the component

Section of the component
Section of the component
Section of the component



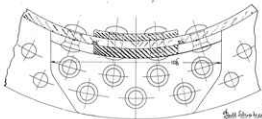
S247

V936



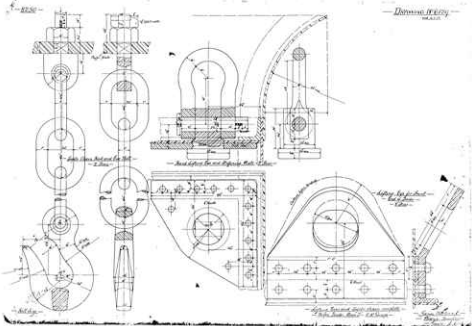
Roberts
2-11-11

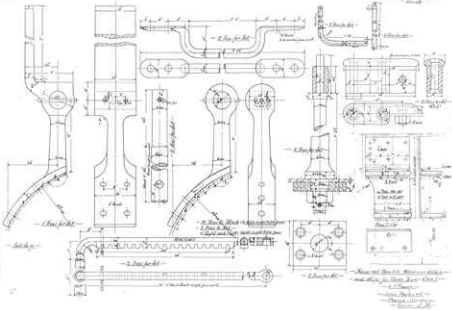
Shell Line



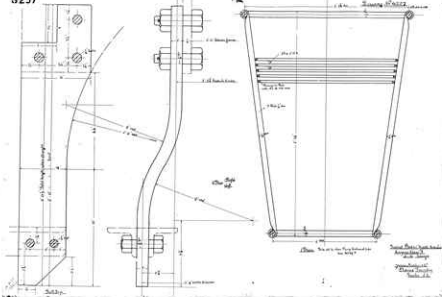
Shell Line
Roberts
2-11-11

100-100000-1-1-11
100-100000-1-1-11
100-100000-1-1-11





S257



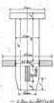
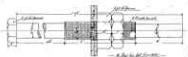
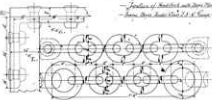


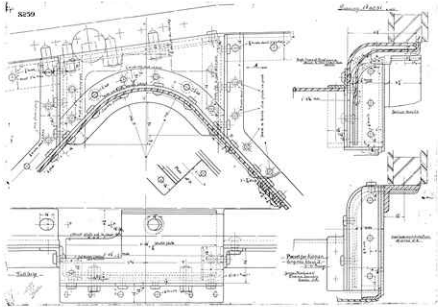
Figure of shaft with hub and component



Detail of shaft with hub and component

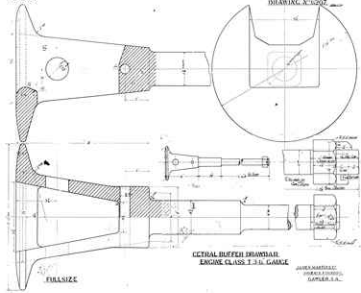
Patent 11,111

4 5259



S263

DRAWING A-10202



CENTRAL BUFFER DRAWING
ENGINE CLASS T-3-G GAUGE

AMERICAN
MACHINE TOOL
COMPANY
LANSING, U.S.A.

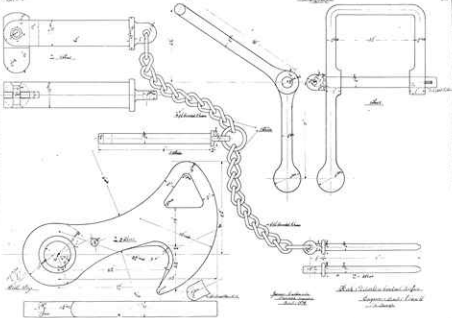
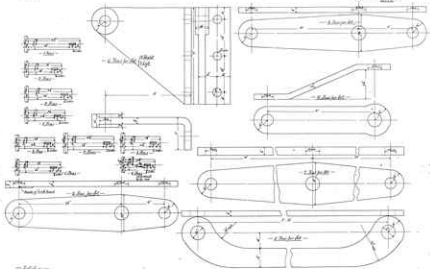


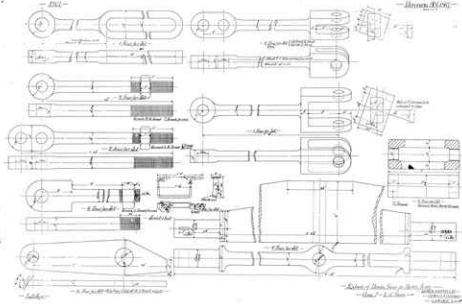
Fig. 10

Fig. 11



— *Angle* —
Handwritten signature

— *Detail for Detail See for Detail* —
 — *Handwritten signature* —
Handwritten signature



—Drawing 111111—
 —Section A-A—
 —Section B-B—
 —Section C-C—
 —Section D-D—

FIG. 2

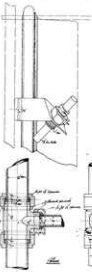
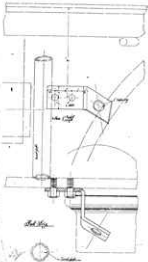
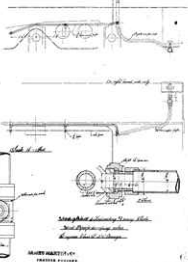
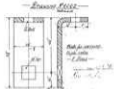
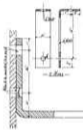


FIG. 3



MADE IN U.S.A.
 TRADE MARK
 TAYLOR, U.S.A.



— Section of the Pipe —
— Side View —

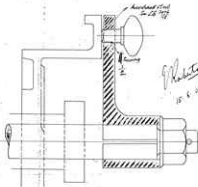
— Section of the Pipe —
— Side View —
— Section —

— Section of the Pipe —
— Side View —
— Section —



S429

5-10-12



*Photo
15.6.1910*

Full size

L341

1000 mm

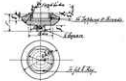
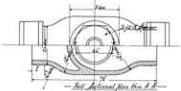
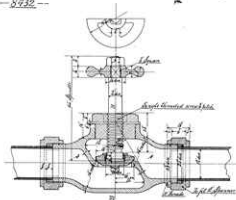
A304

1000 mm



*Locking device for
Regulator like with Regulator class T
5-6 Gauge*

LOCOMOTIVE DEPT
SOUTH AUSTRALIAN RYD
ADEL AIDE



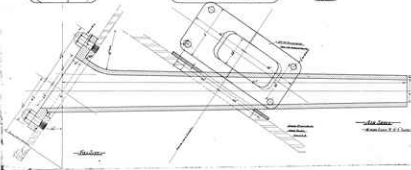
- 2 fil. Sph. brass like A & B -
- 2.5 in. Complete -

- Cook on tapered conical pipe -
- for ash damping gear -
- Empire Class 7 1/2 C Group -
- Iron Section 1 -
- Phoenix Foundry -
- Seattle, W. A.

- full size -

8477

Drawings



SOUTH AUSTRALIAN RAILWAYS
ENGINE CLASS T

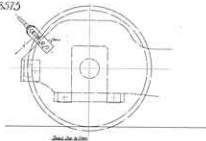
8483



JAMES MARTIN & CO. LTD.
ENGINEERS FREDERICK
CAWLER, S. A.

Ed. J. P.

8575

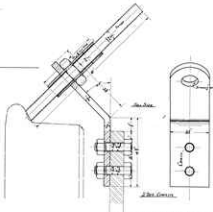


See also 8576

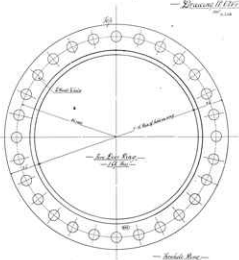


JAMES MARTIN & CO
 PATENT ATTORNEYS
 NEW YORK, N. Y.

Wm. C. Brown



WILLIAM C. BROWN
 PATENT ATTORNEY
 NEW YORK, N. Y.

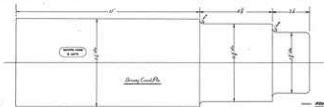
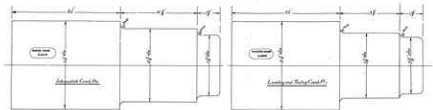


- Side View -
1 1/2"
1"
1 1/2"

- See Side View -
- See Side View -
- 1 1/2" dia. -
- See Side View -
- See Side View -
- See Side View -

6214

SS-49

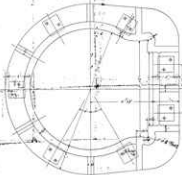


— Callout —

— SHOW FINISHES EXACTLY —
 — Equalize T & G Corp —

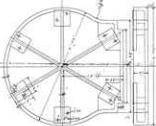
APPROVED FOR
 (SEE DRAWING #)
 DATE: 10/10/11

9116



W303

W303



*This drawing is for the
use of the
The drawing is for the
The drawing is for the*

[Handwritten signature]

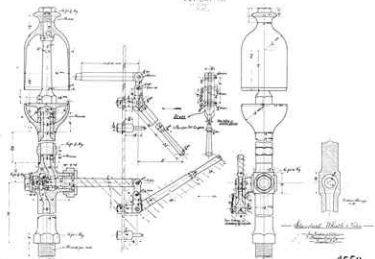
This drawing is for the use of the

GEOMETRIC, INC.
200 N. BROADWAY, N.Y.
N.Y. 10004, N.Y.

2046A
9340

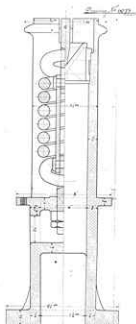
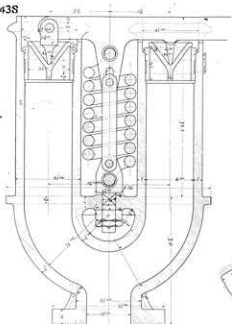
Fig. 1

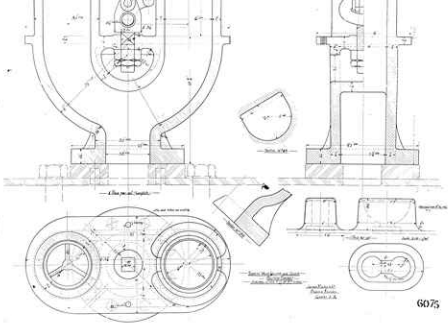
Fig. 2

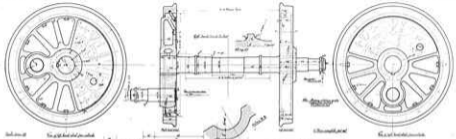


4558

9438







Wheel
Front view

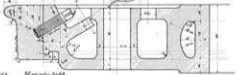
Wheel
Rear view



Component



Component

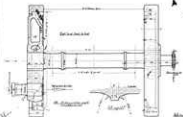
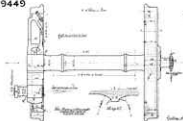


Assembly

Scale: 1:1

100

9449



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9459

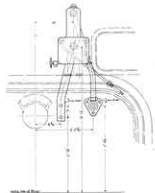
DRAWING N^o 609



Side View



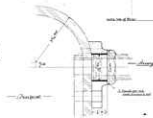
Detail of Curved Arm



Front View



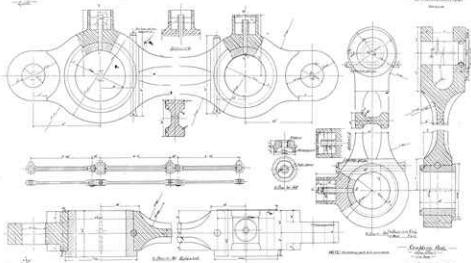
Base Plate



Sectional View

Amount of Rubber Pipe used depends on
 - Length of Arm
 - Diameter of Pipe

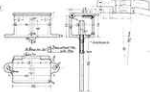
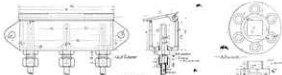
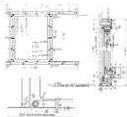
JAMES MARTIN & CO.
 ENGINEERS
 NEW YORK, N. Y.



— Drawing No. —
— 10000000 —
— 10000000 —
— 10000000 —

9539

CHARLOTTE #10004

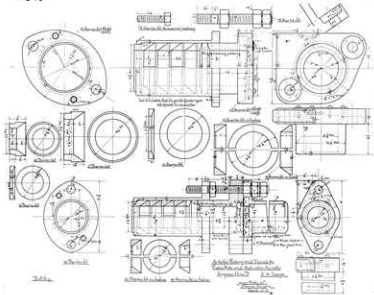


Not to Scale
 Detail for Design
 Section 10004

10004
 10004
 10004

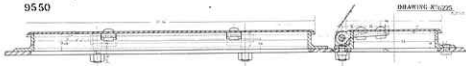
9549

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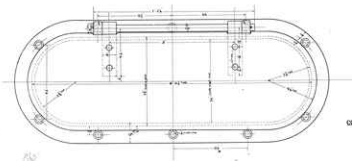


95 50

DRAWING NO. 275



- Change 3d -
- Right 1/4" -



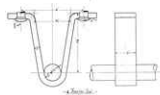
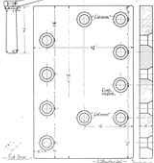
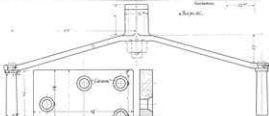
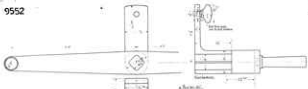
CONDENSER MOTION BARS
ENGINES CLASS T
1-1/2" GAUGE

AMES BROTHERS
DESIGN ENGINEERS
LITTLE ROCK, AR.

FINAL SIZE

9552

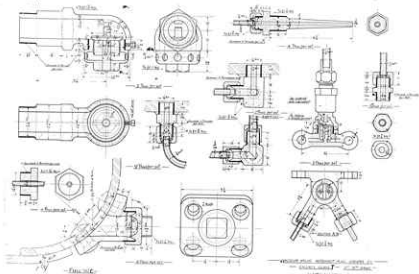
Henry North



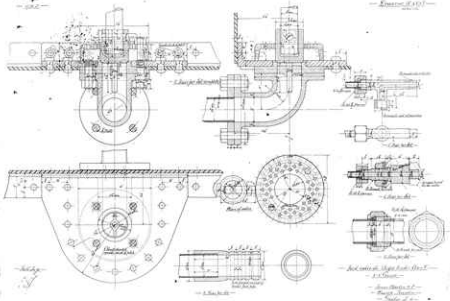
—English and Every Other
—the distance from the center
of the pulley to the center
of the shaft

9554

DRAWING NO. 6083

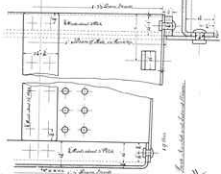
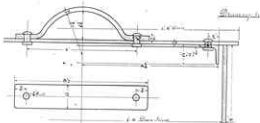


FOR THE USE OF THE ENGINEER
JAMES HARTLEY
MILLS, CHICAGO
COPY 100



9366

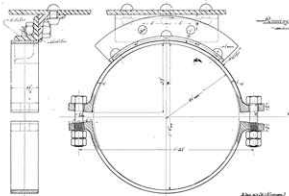
Handwritten title or reference text



Handwritten notes:
 Not shown but
 see drawing
 separate to show
 connection
 detail

Full top

1567



James M. Carter

James M. Carter

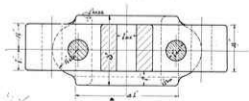
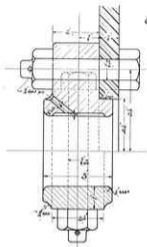
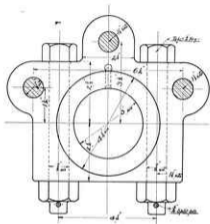
JAMES M. CARTER, Jr.
PATENT OFFICE
BALTIMORE, MD.

James M. Carter
PATENT OFFICE
BALTIMORE, MD.



FIG. 1
FIG. 2

9568



W. H. & C. CO.
THE PATENT

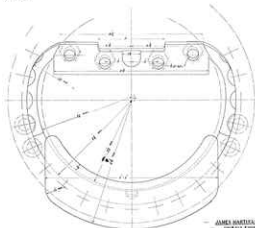
—*Top View*—

—*Brake Shaft Carrier*—

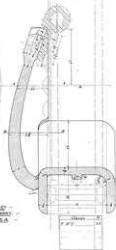
—*Engine Tender Class T*—

—*3' 6" Gauge*—

9591



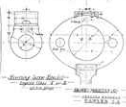
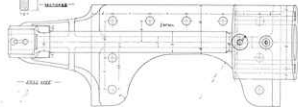
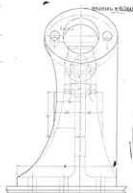
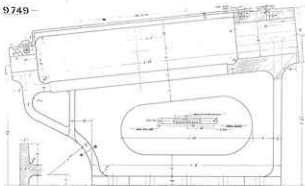
DRAWING # 6558



JAMES HARTBAG
WATCH MAKER
CAPLETON

See also reference page
No. 1 of page

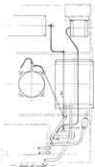
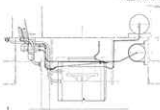
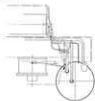
9749



MADE IN U.S.A.
HAYLEN J.A.

9994

— DRAWING # 6358 —

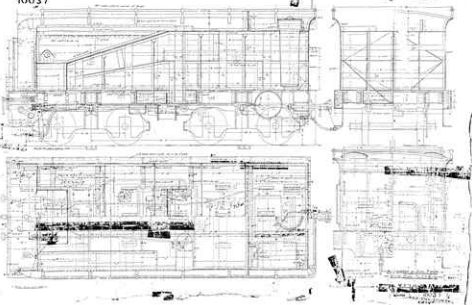


— Improved Patent Valve for
— Locomotives of
— A. L. Jones —

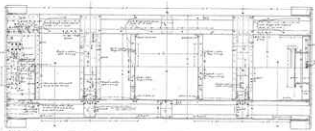
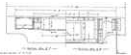
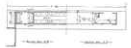
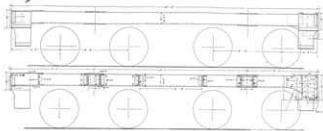
— JAMES HARTON, C. E. —

— CHAS. HENRY
— PATENT AGENT —

10037



10038



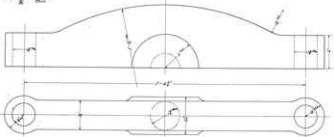
1. The structure is a rectangular building with a central vertical corridor.
 2. The structure is a rectangular building with a central vertical corridor.
 3. The structure is a rectangular building with a central vertical corridor.

— Structure of Building —
 — Plan, Section 2, 3, 4, 5 —

DRAWING BY
 W. H. COLLIER
 1917-1918

10038
 10038

10046



— FULL SIZE —

— A Dia. in. —

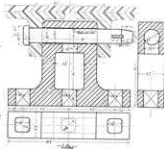
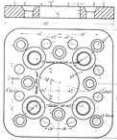
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— Upward 100 — — Down 1000 Glass T — 3rd 6th Grade —
— some surface of —
— 1000 —

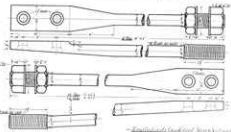
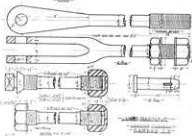
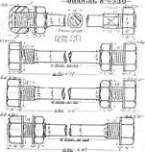
10046

FILE UNDER DRAWING 11

10047

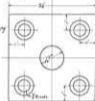
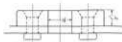
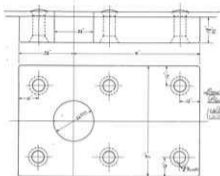


QUARTZ R-4310



20

Engineering Drawing Department



See Cross Section
Drawing - This
Check
Gauges

See Cross Section
Drawing - This
Check
Gauges



See Cross Section
Drawing - This
Check
Gauges



See Cross Section
Drawing - This
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Gauges

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See
Cross Section
Drawing - This
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Gauges

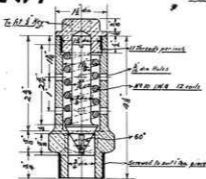
Full Size

REPRODUCED FROM
DRAWING NUMBER 10178
AS OF 11 APRIL 1958

10207

6793

R.F. 10-1-16.



Valve to blow off at 95 lbs per sq. inch. the spaces filled with
equally sized stones under valve.



See note to be drawn
95.



James Martin & Co.
Phoenix Foundry
Lawler, S.F.

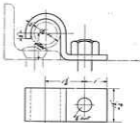
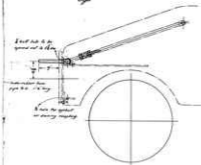
— Full Size —

— Thus Complete —

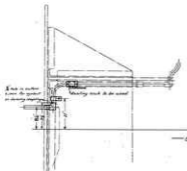
— Safety Valve for Main Reservoir —

6793

10269



L7202



Scale 1/4" = 1"

— *Adelaide & Mountbatten Train File on Headstock* —

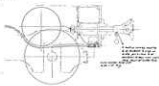
— *Locomotives Class J* —

— *3-6 Gauge* —

LOCOMOTIVE COY
SOUTH AUSTRALIAN RYD
R.F.F. ADELAIDE

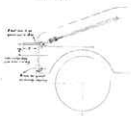
10269
FILE TENDER DRAWER

10270



— Side View of —
 — Shows Locking Mechanism —
 — Shows Locking Mechanism —
 — Shows Locking Mechanism —
 — Shows Locking Mechanism —

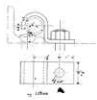
10269



— Side View of —
 — Shows Locking Mechanism —
 — Shows Locking Mechanism —
 — Shows Locking Mechanism —
 — Shows Locking Mechanism —

DRAWING NO. 6655

REV. 1-1952



— Shows Locking Mechanism —
 — Shows Locking Mechanism —
 — Shows Locking Mechanism —
 — Shows Locking Mechanism —

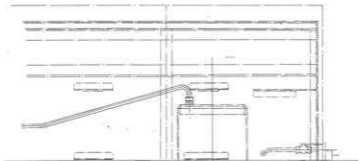
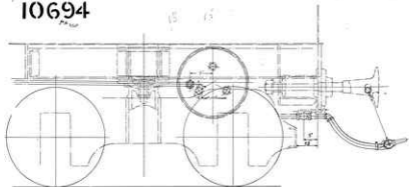
ARMED & DANGEROUS

PHILIPS COMPANY
SACRAMENTO, CALIF.

6655

10694

15 16



Scale of construction

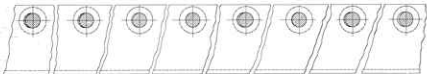
Copyright & design of this Machine and Patent
G.W. F. Dyer, Adelaide

LOCOMOTIVE DEPT
SOUTH AUSTRALIAN RYS
ADELAIDE

10694

FILE TENDER DRAWER

11172



— Such number off the Mill Size —

— Wire Size given below in Thread units —
— Bore Size given I
— A.C. Gauge

AMERICAN WIRE
ROPE & CABLE CO. N.Y.
STEEL CABLES
PITTSBURGH, PA. U.S.A.
WIRE ROPE MANUFACTURING CO.

1156S



— OPERATING DEPT — — Steel Spring Steel —
— SOUTH AFRICAN STEEL — — Diameter 1.5 inch —
— MANUFACTURE — — 1.5 inch —

11569

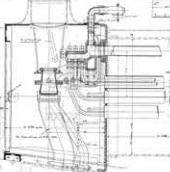


— PROTOTYPE COPY —
 — WITH CUSTOMER'S REVISIONS —
 — EXPLANATIONS —

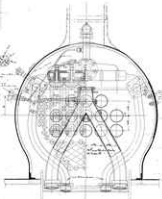
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|----------------------------|--------------|-----|-----------|
| — <i>Engr. J. J. ...</i> — | <i>J. J.</i> | CO. | J. A. W. |
| — <i>Engr. C. H. ...</i> — | <i>C. H.</i> | CO. | CO. 11569 |
| — <i>C. H.</i> — | <i>C. H.</i> | CO. | CO. 11569 |



A Plan View of the Lens Support



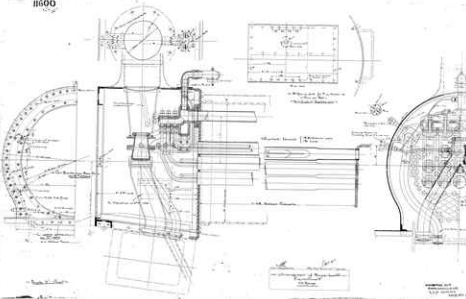
A Cross Section of the Lens Support



A Cross Section of the Lens Support

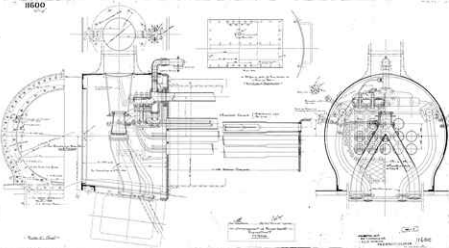
14 00

11600



ASSEMBLY DRAWING
VALVE
11600

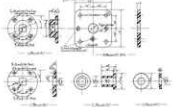
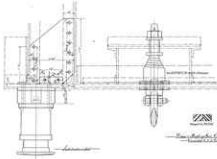
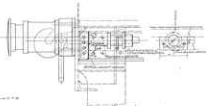
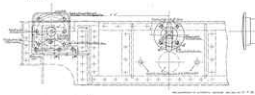
ENGINEERING DEPARTMENT
UNIVERSITY OF CALIFORNIA
BERKELEY, CALIF.



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 1.500
 1.500

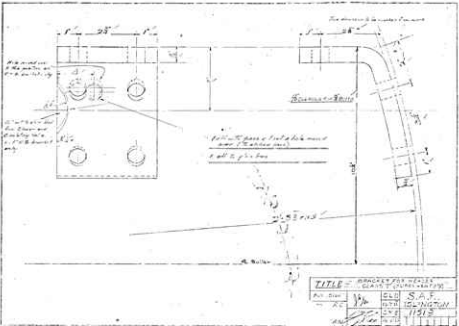
1.500
 1.500
 1.500

11604



Copyright © 1964 by General Motors Corporation

11604
 THE FORD MOTOR COMPANY



The drawing is for the pump and the drawing is for the pump only

The drawing is for the pump and the drawing is for the pump only

fall with pass & find a hole must cover (the hole) and fall to place

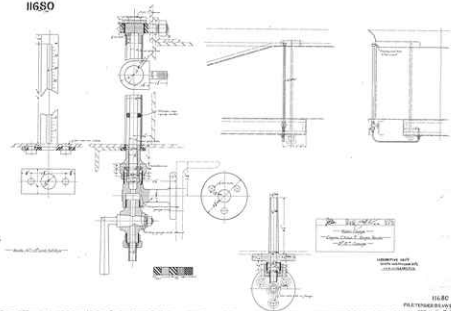
The direction of the water flow is upward

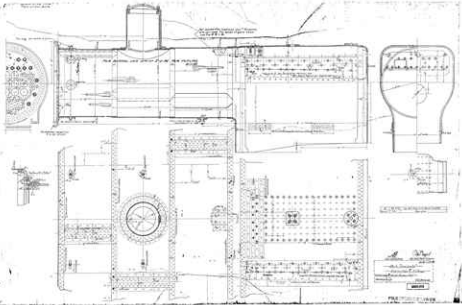
Screw in down

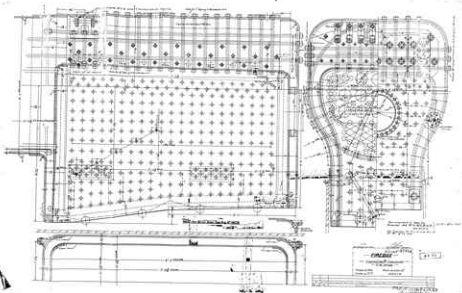
| | | | |
|---------------------------------------|---------|-----------------|-----------|
| TITLE - PUMP FOR WELLS CLASSIFICATION | | | |
| REV | DATE | BY | CHKD |
| 1 | 1/15/52 | J. H. [unclear] | [unclear] |
| DATE | | BY | |
| 1/15/52 | | J. H. [unclear] | |

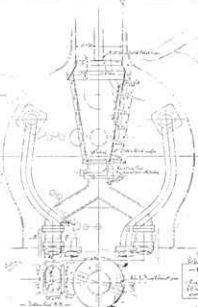
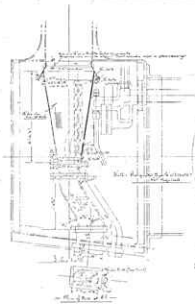
H. OGDEN CHAMBERLAIN

11680



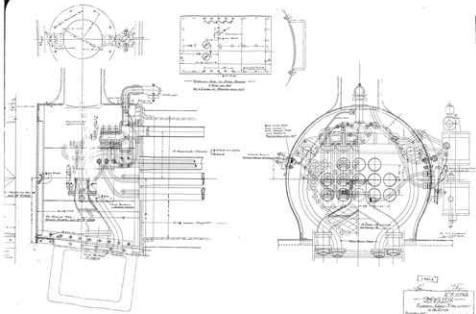




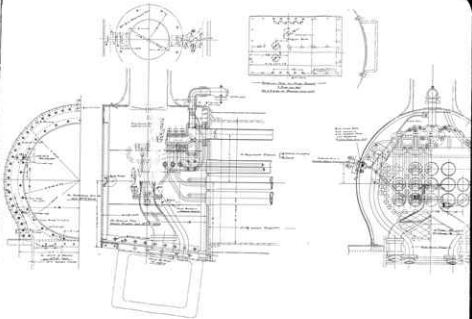


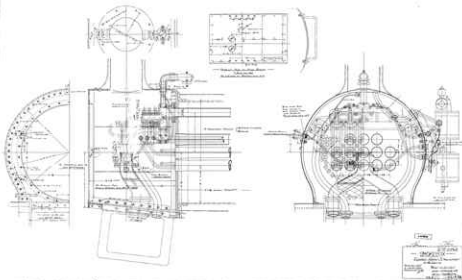
1/2" Scale
 Drawing of Valve
 - Valve Body
 - Valve Stem
 - Valve Seat
 - Valve Gasket
 - Valve Packing

1.000 0000



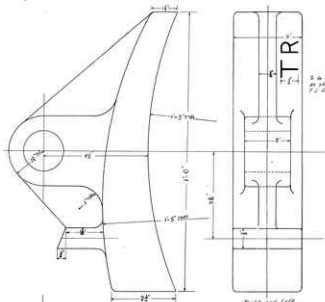
(1742)
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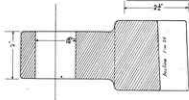
Legend:
 ———— Valve Rod
 ———— Eccentric
 ———— Crank Pin
 ———— Connecting Rod
 ———— Piston Rod
 ———— Piston
 ———— Cylinder

ing reduced from 4 to 3 and increased to about
and being increased 10 to 15



To be marked on record type
as shown T R for 3/4 inch
T R for 1/2 inch

Right and left
Drawing plane R H



C. W.

G. M. E.

Drawing No. 12144

Brake Block
Full Size
Bryn Mawr-City T. S. E. Corp.
Drawn by C. W.
Traced by C. W. - SINGAPOREAN R.F.D.
Checked by R. C. - 12144

12144

SOLE TENDER DRAWER

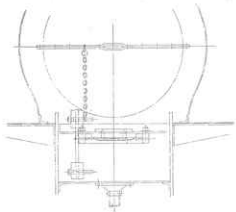
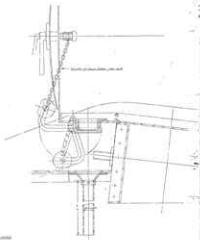


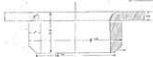
Fig. 1



Fig. 2



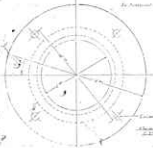
15
 W. H. H. H.
 Mechanical and Civil Engineer
 Cambridge, Massachusetts
 U.S.A.
 1911



Other part of the same part round



As the
part
of the
part
of the
part



As the part of the part

As the part of the part

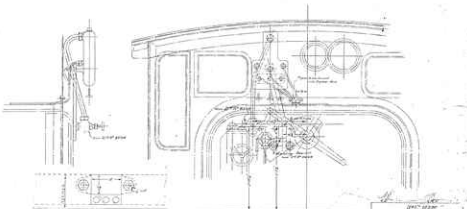


As the part of the part



As the part of the part

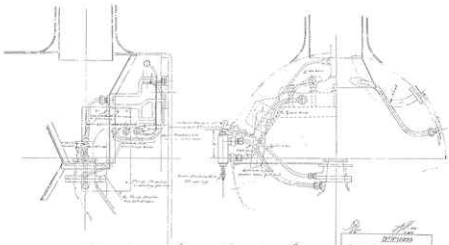
As the part of the part



1871-1872
 Copyright of the U.S. Patent Office
 George S. Co. & Co.
 No. 100
 No. 100

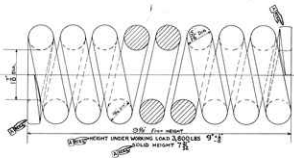
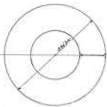
G. S. CO. & CO.

Part of the



B. L.
A. L.
 2571000
 Compagnie de Lampes
 de Cheminée
 Lumière, Gaze & Éclairage
 10, rue de la Harpe
 Paris

10 MILLIMÈTRES



2 1/2 in. dia. wire
 HEIGHT UNDER WORKING LOAD 2.800 LBS 9" L
 SOLID HEIGHT 7 1/2"

AR

W. H. ...

FILE SPRING
 THE FOLLOWING IS A
 LIST OF THE
 PARTS

Two in. dia. A
 Side Bearing Spring for Diesel Tender
 Engine No. 7
 E. G. Gauge
 Drawn by *W. H.*
 Check by *W. H.*
 Made by *W. H.*

Scale Full Size
 South Australian Dept
 Adelaide
 1911

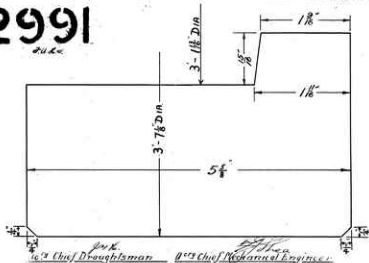
FILE SPRING
DRAWN

| | | |
|--|--|--|
| | | |
| | | |

WORKING UNDER LOAD & SOLID HEIGHT ADDED. END COLL & DRAWN
 BY *W. H.*

12991

J.H.L.



Rough Section of Flangeless Tyre

Engines, Class T 3'-6" Gauge

Full Size

LOCOMOTIVE DEPT
SOUTH AUSTRALIAN RYS

25-7-05. ADELAIDE.

12991

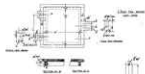


Fig. 10-10

Fig. 10-11



Fig. 10-12



Mechanical Drawing - Sheet 10-10
 New Standard for Metric Practice
 Issue No. 10-10-10
 1955
 10-10-10

Fig. 10-13

Fig. 10-14

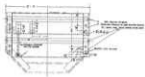


Fig. 1



Fig. 2



Fig. 3



Fig. 4



Fig. 5



Fig. 6

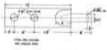


Fig. 7



Fig. 8



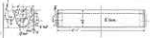
Fig. 9



Fig. 10



| | |
|--------------|--------------|
| Scale | 1/2" = 1' |
| Material | Cast Iron |
| Weight | 10 lbs. |
| Height | 12" 00" |
| Width | 12" 00" |
| Depth | 12" 00" |
| Volume | 1728 cu. in. |
| Surface Area | 864 sq. in. |
| Perimeter | 48" 00" |



Technical drawing of a pipe with a 90-degree elbow. It shows the longitudinal section of the elbow.

Technical drawing of a pipe with a 90-degree elbow. It shows the longitudinal section of the elbow.



Technical drawing of a pipe with a longitudinal section and a circular end view.



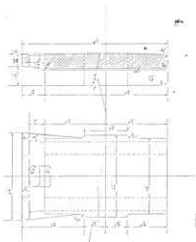
Technical drawing of a pipe with a circular end view.



Technical drawing of a pipe with a longitudinal section.

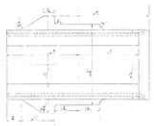
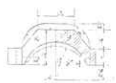


| | |
|----------------------------|--------------------------------|
| <p>Scale: 1/4" = 1'-0"</p> | |
| <p>Author: [Name]</p> | <p>Date: [Date]</p> |
| <p>Checked: [Name]</p> | <p>Approved: [Name]</p> |
| <p>Drawn: [Name]</p> | <p>Project: [Project Name]</p> |



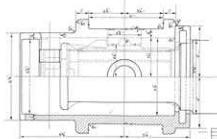
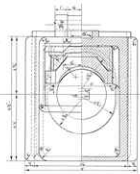
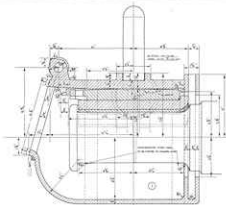
| | | | |
|---|-------|------|------|
| 1 | Steel | 1.00 | 1.00 |
|---|-------|------|------|

Mr. J. H. ...
 ...
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 ...
 ...

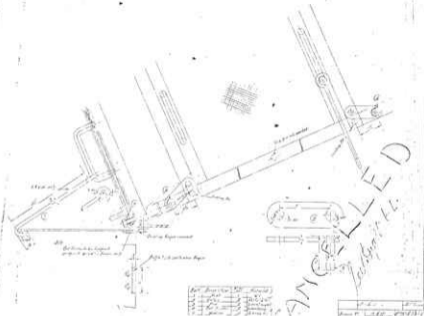


| | | | |
|-------|-------|-------|--------|
| 1/2" | 1/4" | 1/8" | 1/16" |
| 1/4" | 1/8" | 1/16" | 1/32" |
| 1/8" | 1/16" | 1/32" | 1/64" |
| 1/16" | 1/32" | 1/64" | 1/128" |

1/2" = 1/4" = 1/8" = 1/16" = 1/32" = 1/64" = 1/128"
 1/4" = 1/8" = 1/16" = 1/32" = 1/64" = 1/128"
 1/8" = 1/16" = 1/32" = 1/64" = 1/128"
 1/16" = 1/32" = 1/64" = 1/128"



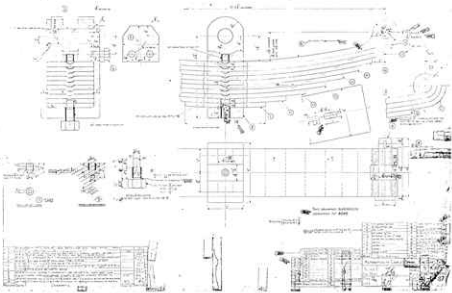
| DRAWING NO. | | REVISED | |
|--|-----|---------|-----------|
| WHITE METAL AXLE BOX FOR
BOGE TRUCKS CLASS T ENGINE | | | |
| DESIGNED BY | CS | SA R. | ISLINGTON |
| DRAWN BY | EME | 40534 | |
| CHECKED BY | | | |
| DATE | | | |

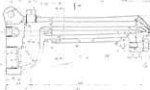


| Part | Quantity | Material | Remarks |
|------|----------|----------|---------|
| 1 | 1 | Steel | |
| 2 | 1 | Steel | |
| 3 | 1 | Steel | |
| 4 | 1 | Steel | |
| 5 | 1 | Steel | |
| 6 | 1 | Steel | |
| 7 | 1 | Steel | |
| 8 | 1 | Steel | |
| 9 | 1 | Steel | |
| 10 | 1 | Steel | |

SAMPLED
 Johnson & Co.

| Part | Quantity | Material | Remarks |
|------|----------|----------|---------|
| 1 | 1 | Steel | |
| 2 | 1 | Steel | |
| 3 | 1 | Steel | |
| 4 | 1 | Steel | |
| 5 | 1 | Steel | |
| 6 | 1 | Steel | |
| 7 | 1 | Steel | |
| 8 | 1 | Steel | |
| 9 | 1 | Steel | |
| 10 | 1 | Steel | |



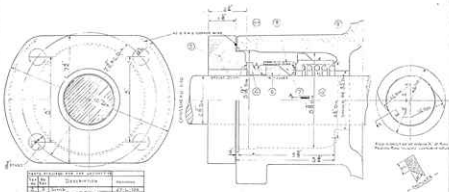


1. The drawing shows the assembly of the valve and actuator.
 2. The drawing shows the assembly of the valve and actuator.
 3. The drawing shows the assembly of the valve and actuator.
 4. The drawing shows the assembly of the valve and actuator.
 5. The drawing shows the assembly of the valve and actuator.

6. The drawing shows the assembly of the valve and actuator.
 7. The drawing shows the assembly of the valve and actuator.
 8. The drawing shows the assembly of the valve and actuator.
 9. The drawing shows the assembly of the valve and actuator.
 10. The drawing shows the assembly of the valve and actuator.

| NO. | DESCRIPTION | QTY. |
|-----|---------------------------|------|
| 1 | VALVE BODY | 1 |
| 2 | ACTUATOR | 1 |
| 3 | VALVE STEM | 1 |
| 4 | VALVE HANDLE | 1 |
| 5 | VALVE MOUNTING BRACKET | 1 |
| 6 | VALVE GASKET | 1 |
| 7 | VALVE O-RING | 1 |
| 8 | VALVE BALL | 1 |
| 9 | VALVE BALL COUPLER | 1 |
| 10 | VALVE BALL COUPLER GASKET | 1 |

NUMBER OF IN. PIPES
 1.000



| Qty. | Part No. | Description | Material |
|------|----------|----------------|----------|
| 1 | 1000 | Barrel | 4140 |
| 1 | 1001 | Bolt | 4140 |
| 1 | 1002 | Washer | 304 |
| 1 | 1003 | Lock Washer | 304 |
| 1 | 1004 | Head Cap Screw | 304 |
| 1 | 1005 | Washer | 304 |
| 1 | 1006 | Lock Washer | 304 |
| 1 | 1007 | Head Cap Screw | 304 |
| 1 | 1008 | Washer | 304 |
| 1 | 1009 | Lock Washer | 304 |
| 1 | 1010 | Head Cap Screw | 304 |

Drawn from the U.S. Army Ordnance Corp.
Doc. No. 250735

King Manufacturing Division, Dept. of Ordnance
 King's Arms Co., Inc.
 1000 10th St., N.W.
 Washington, D.C. 20004
 27-L-101

3 mm dia (1/8")



1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20.

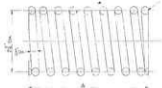
1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20.

1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20.

BURNER LIP

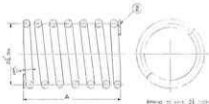
BURNER LIP

CSS-1-145



SPRING TO USE 7.00000 5008

$2\frac{1}{2}$ " - overall height with 178 lbs. load
 $1\frac{1}{2}$ " - coil height
 $1\frac{1}{2}$ " - total height



SPRING TO USE 24.00000 5008

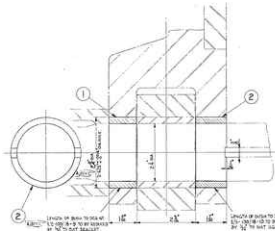
$2\frac{1}{2}$ " - overall height with 178 lbs. load
 $1\frac{1}{2}$ " - coil height
 $1\frac{1}{2}$ " - total height

THESE SPRINGS TO BE USED ONLY WITH STAIN
 LESS 316 MATERIAL AND WORKING AT

FOR 1.00000 PRESSURE SEE SPEC. 27-L-148

| | | | |
|------|------|-------------|----|
| REV. | DATE | DESCRIPTION | BY |
| | | | |
| | | | |
| | | | |

| | | | |
|---|-----------|---------|-----------------------------|
| QTY | 700.000 | QTY | 1000.000 |
| UNIT | T. 500 | UNIT | 1/2 IN. - 1/2 IN. - 1/2 IN. |
| MATERIAL | 316 SS | WORKING | 178 LBS. |
| SPRINGS FOR MISS METALLIC VALVE STEM
PACKING - 303.000 & T. 500 INCH | | | |
| DRWS - | | CD | E & R |
| REV. 001 | <i>HR</i> | DATE | 12/10/50 |
| DRG. NO. | <i>HR</i> | CHKD | 27-L-148 |
| | | | |



- BUSHES TO BE CASEHARDENED
- BUSHES TO BE APPROVED ALL OVER.
- FOR BRACKET FOR COMPENSATING BEAM MODEL 8047
- BUSHES TO BE A PRESS FIT.

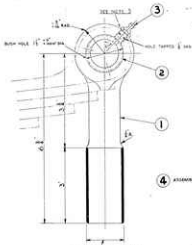
THIS ENG. SUPERSEDES BUSHES SHOWN ON ENG. 8047

| | | | |
|---|--------------|---|------------------------|
| 1 | BUSH (TOP) | 5 | SEE ENG. 11 1/2 1977-8 |
| 2 | BUSH (SHAFT) | 6 | SEE ENG. 11 1/2 1977-8 |
| 3 | BRACKET | 7 | SEE ENG. 11 1/2 1977-8 |
| 4 | BRACKET | 8 | SEE ENG. 11 1/2 1977-8 |

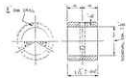
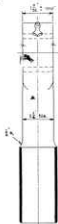
BUSHES FOR BRACKET FOR COMPENSATING BEAM — ENGS CLASS 'T'

| | | | |
|-----------------|--------------------|----------|---------|
| SCALE | <i>LC</i> | C.D. | S.A.R. |
| FULL DET. | | 12-12 | BLURTON |
| ENGR. <i>LC</i> | <i>W. H. H. H.</i> | C.M.L. | 41-L-85 |
| DATE | | 22 12 85 | A |

| | | | |
|----------|-------------|------------|------|
| APPROVED | DESIGNED BY | CHECKED BY | DATE |
| | | | |



SHARPEN TO DIA. 1.5 IN.
MEDIUM FIT. R&L. 88.

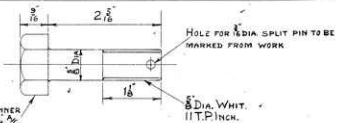


2 SEE NOTE 4

NOTE:

1. F SHARPENED END
2. THIS PART SUBSTITUTES FOR BUSH OF P.
3. SHARPENED TO FIT SHAFT.
4. ALL DIMENSIONS NOT SHOWN TO BE IN ACCORDANCE WITH DIM. 1/16-100.

| | | | |
|---|--|---|---|
| TITLE: LINK SPRING TO COMPENSATING BEAM
DRAWING NO.: 441-L-103 | | QUANTITY: 1
UNIT: PC | DATE: 1/15/50
DESIGNED BY: [Signature]
CHECKED BY: [Signature] |
| PART NO.: 441-L-103
REV. 1 | MATERIAL: STEEL
FINISH: AS SUPPLIED | WEIGHT: 0.10
VOLUME: 0.10 | STORAGE: STEEL
INSPECTION: INSPECTION UNIT, TORQUE 1.00-1.00
1.00-1.00 |
| - LINK SPRING TO COMPENSATING BEAM -
DRAWING NO. 441-L-103 | | DR. MAXWELL WOODRUFF
DRAWING BOARD OFFICER
D41-L-103 | |



TO SUIT 5/8 SPANNER
 $1 \frac{1}{2} \times \frac{1}{4} \times \frac{1}{4}$

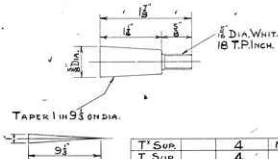
HOLE FOR 1/8 DIA. SPLIT PIN TO BE MARKED FROM WORK

5/8 DIA. WHIT.
 11 T. PINCH.

FOR ABBOT SEE D^{NO} 27-L-91

| | | | |
|-------------------------------------|--|-----------------------|------------|
| T ^{SUP} | | 4 | MILD STEEL |
| T ^{SUP} | | 4 | " " |
| R ^{SUP} | | 4 | " " |
| ENG. CLASS. | DATE | N ^{PER} ENG. | MATERIAL |
| BOLT | | | |
| PISTON ROD BRITISH METALLIC PACKING | | | |
| SCALE | <i>Johns</i>
D ^{NO} 260K
C ^{NO} <i>Johns</i> | C.D. | S. A. R. |
| FULL SIZE | | 16-5-30 | ISLINGTON. |
| | | C.M.E. | 27-L-97 |
| | | 12-5-31 | |

| | | |
|-------------------|------|-------------|
| REV ^{NO} | DATE | DESCRIPTION |
|-------------------|------|-------------|



FOR ARRGT. SEE D^{NO} N^O 27-L-91

| | | |
|---------------------|------|-------------------------|
| T ^O SUR. | 4 | MILD STEEL |
| T SUR. | 4 | " " |
| R ^O SUR. | 4 | " " |
| ENG CLASS | DATE | N ^O PER ENG. |
| | | MATERIAL |

COTTER PIN
PISTON ROD BRITISH METALLIC PACKING

SCALE
FULL SIZE

CD.

S.A.R.

10-5-25
ISLINGTON

D^R N^O 27-L-91
C^H E^S

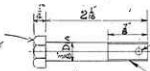
CME

27-L-98

REV^O DATE

DESCRIPTION

2 1/2" KEY
 2 1/2" A/C
 3/8" DIA. WHIT. 16 T.P. INCH.



HOLE FOR 3/8" DIA. SPLIT PIN TO BE MARKED FROM WORK

3/8" DIA. WHIT. 16 T.P. INCH.

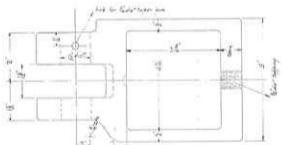
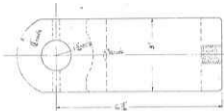
FOR ARRGT SEE DR^N: 27-L-91.

| | | | |
|---------------------|------|-------------------------|------------|
| T ^o SUP. | | 4 | MILD STEEL |
| T SUP. | | 4 | - |
| R ^o SUP. | | 4 | - |
| ENG. CLASS. | DATE | N ^o PER ENG. | MATERIAL |

BOLT
 PISTON ROD BRITISH METALLIC PACKING

| | | | |
|-------------------------------------|--------------------|---------|------------|
| SCALE FULL SIZE | <i>Johns</i> | G.D. | S.A.R. |
| | | 16 5 35 | ISLINGTON. |
| DR ^N <i>J.M.</i> | <i>[Signature]</i> | CME | 27-L-99 |
| C ^{HED} <i>[Signature]</i> | | 17 5 35 | A |

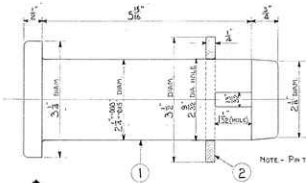
| | | | |
|------------------|--------|--------------------------|------------|
| REV ^N | DATE | DESCRIPTION | INITIAL |
| A | 9-8-37 | HEAD ALTERED TO 1/4 HEX. | <i>Mk.</i> |



See Arrangement by AP 20-17

| | | | | | | | | | |
|--|-------------------|-------|---------|----------|----------|----------|----------|----------|----------|
| AP | 20-17 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Project | Date | Drawn | Checked | Approved | Reviewed | Released | Released | Released | Released |
| NUCLEAR POWER ENGINE COUPLED SPRING | | | | | | | | | |
| Scale: | SLDS A R | | | | | | | | |
| PLS | ESTIMATION | | | | | | | | |
| Doc. No. | CME 10-6-1 | | | | | | | | |





NOTE - PIN TO BE CASEHARDENED.

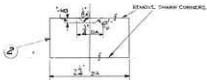
FOR ALTERATION TO SPRING RIGGING SEE DRG NO 42-L-217

| | | | |
|------|-------------|-----|------------------------|
| 2 | WASHER | 2 | M.S. STEEL |
| 1 | PIN | 2 | STEEL A 5 S 16 CLASS 2 |
| MARK | DESCRIPTION | QTY | MATERIAL |

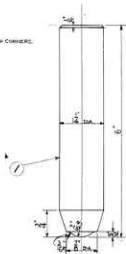
PIN FOR TRAILING COMPENSATING BEAM
CLASS "T" WITH COMPENSATED BRAKE GEAR

| | | | |
|------------|--------------------|---------|-----------|
| Full Size | <i>[Signature]</i> | A.C.D. | S. A. R. |
| Drawn by | <i>[Signature]</i> | 21-3-66 | ISLINGTON |
| Checked by | <i>[Signature]</i> | CME | 41-L-64 |
| | | 21-3-66 | |

| REV# | DATE | DESCRIPTION | BY |
|------|------|-------------|----|
| | | | |
| | | | |



SECTION OF H.S.



FOR COUPLED SPRINGS SEE DRG 41-L-87 (T & T)

FOR Y & YX COUPLED SPRINGS SEE DRG 7426A.

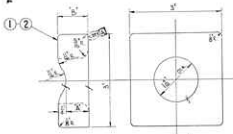
| Q | BLOCK | 1 | S.C.P. STEEL |
|---|--------------------|----------|--------------------|
| 1 | PUNCH | 1 | H.S.P. SPEED STEEL |
| MARK | DESCRIPTION | NO./IMP. | MATERIAL |
| MIRBINE TOOL FOR COUPLED SPRINGS. | | | |
| SMP. CLASS "T" & "T _x " Y & Y _x . | | | |
| SCALE | <i>1/4"</i> | C.D. | J. A. R. |
| FULL SIZE | | 15-1-46 | ISLINGTON. |
| DATE | <i>1/1/46</i> | C.M.S. | 41-L-86 |
| CHKD | <i>J. Harrison</i> | 15-1-46A | |

| A | 11-2-47 | Y & Y _x CLASSES ADDED | C.M.R. |
|------|-------------|----------------------------------|--------|
| DATE | DESCRIPTION | INITIAL | |
| | | | |

E/41-L-101

| | |
|----------|------|
| REVISION | DATE |
| | |
| | |

| | |
|---------------|-----------|
| WORKS ORDER | NO. WORKS |
| CLASS Y. INGS | |
| | SEE NOTES |



| | | | |
|-----|----|------|------|
| NO. | BY | CHKD | DATE |
| 1 | | | |
| 2 | | | |

Note

- 1) DETAIL TO BE CASE-HARDENED.
- 2) FOR DETAILS OF SPRING LINK SEE DRG C/41-L-100.
- 3) WHEN ORDERING QUOTE IN LBS W/ RISE TO GIVE CORRECT ADJUSTMENT TO SPRING RACING. TOTAL W/ RISE - A.

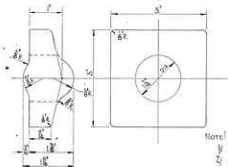
THIS DRAWING, ORIGINAL AND REVISIONS, IS THE PROPERTY OF THE RAILWAY WORKS. IT IS TO BE KEPT IN THE WORKS.

| | | | | | |
|--|--|-----------------------------------|--|--|--|
| ORDERED BY:
ORDER NO:
QUANTITY: | | DRAWN BY:
CHECKED BY:
DATE: | | R.A. RAILWAY WORKSHOPS
MELBURN, SOUTH AUSTRALIA | |
| A. ORDERED BY:
ORDER NO:
QUANTITY: | | DRAWN BY:
CHECKED BY:
DATE: | | E/41-L-101 | |
| SPRING LINK BEARING PAD | | 3000000 STEEL A.S.E.M CLASS J | | 1 | |
| REF: C/41-L-100 | | 1 | | 1 | |

E/41-L-102

| | |
|----------|--|
| REVISED | |
| REVISION | |

| | |
|-----------------|----------|
| WORKS JOB | NO. 4102 |
| CLASS. T. ENGR. | 4 |



Note/

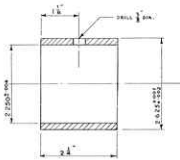
- 1/ DETAIL TO BE CASE-HARDENED.
- 2/ FOR DETAILS OF SPRING LINK SEE DRG. NO. C/41-L-100.
- 3/ USE EXISTING BEARING SEE DRG. 30461 WA. 1

BRIDGE ENGINEER'S OFFICE, ALL
DIMENSIONS UNLESS OTHERWISE STATED
IN FEET AND INCHES

| | | | | | | | |
|---|--|---------------------------------------|--|---|--|---|--|
| | | SPRING LINK BEARING. | | WORKS JOB NO. 4102
CLASS. T. ENGR. 4 | | L.A. RAILWAY WORKSHOPS
MURDOCH, WEST AUSTRALIA | |
| THIS DRAWING IS THE PROPERTY OF THE
RAILWAY DEPARTMENT AND IS NOT TO BE
REPRODUCED OR USED IN ANY MANNER
WITHOUT THE WRITTEN PERMISSION OF THE
RAILWAY DEPARTMENT | | MATERIALS: STEEL A 136 S 13 CLASS 'J' | | DATE: 16/11/49 | | E/41-L-102 | |
| BY: [Signature]
IN PRESENCE: [Signature] | | CHECKED: [Signature] | | APPROVED: [Signature] | | [Signature] | |

| |
|----------|
| REVISION |
| QUANTITY |
| DETAIL |

| | |
|------------|----------|
| WORK ORDER | NO. 8888 |
| C. 41-58 T | 5/L458 |
| | |
| | |



NOTE: BUSHES ARE TO BE CASED HARDENED
 IN ACCORDANCE WITH
 PROCESS BULLETIN NO. 2

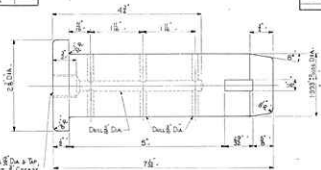
EXACTLY AS SHOWN DRAWING, ALL
 DIMENSIONS TO MATCH A TYPICAL
 SAMPLE ON FILE

| | | | | |
|----------|------------------------------|---|----------------|---|
| MATERIAL | ALL BLANK TUBES TO BE FITTED | MATERIAL AND PRECISION STEEL TUBING
304L, 316L, 316, 304 - 1/2" - 1/4" | WORK ORDER NO. | SA. RAILWAY WORKSHOPS
MELBOURNE, SOUTH AUSTRALIA |
| | | | WORK ORDER NO. | |
| QUANTITY | ALTERNATE | 8047H | DATE: 18/11/95 | |

E 41-L-127

| | |
|----------|--|
| REVISION | |
| DATE | |

| | |
|----------------|--------|
| WORK ORDER NO. | 41-127 |
| FOR CLASS WORK | 41 |



Draw 1/2 Dia. & Top,
To Set & Create
Model.

Note:
1 Pin To Be Casemented.

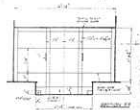
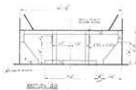
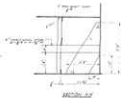
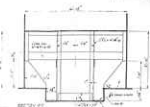
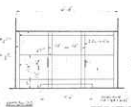
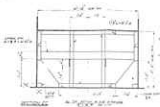
SCALE: AS SHOWN UNLESS NOTED OTHERWISE. THIS DRAWING IS TO BE MADE BY HAND. 2000'

| | |
|-----|-------------|
| NO. | DESCRIPTION |
| | |
| | |
| | |
| | |

| | | | |
|--------------------------------|--|------|--|
| COMPENSATING BEAM PIN | | DATE | |
| | | BY | |
| MATERIAL: STEEL - A516 CLASS 1 | | NO. | |
| QUANTITY: 2000' | | | |

[Handwritten signatures and initials]

| | |
|-------------------------|--|
| S. A. RAILWAY WORKSHOPS | |
| MURKIN, SOUTH AUSTRALIA | |
| E 41-L-127 | |



1. ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SPECIFIED.
 2. ALL DIMENSIONS ARE TO CENTER UNLESS OTHERWISE SPECIFIED.
 3. ALL DIMENSIONS ARE TO CENTER UNLESS OTHERWISE SPECIFIED.
 4. ALL DIMENSIONS ARE TO CENTER UNLESS OTHERWISE SPECIFIED.

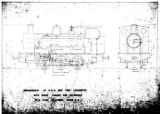
| | | | | | | | |
|--|--|--|--|--|--|--|--|
| APPROVED FOR CONSTRUCTION

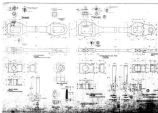
_____ | | APPROVED FOR CONSTRUCTION

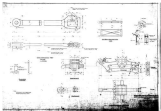
_____ | | APPROVED FOR CONSTRUCTION

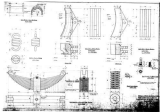
_____ | | APPROVED FOR CONSTRUCTION

_____ | |
| | | | | | | ENGINEER AND ARCHITECT
R. 100 | |











Technical drawing of a cylindrical object.



Technical drawing of a rectangular object with a rounded top.

